The Forum

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ENGLAND, TURKEY, AND INDIA.

ENGLAND, so long the friend and protector, is now the avowed enemy and intending destroyer, of Turkey. How it is that a change so extraordinary has come about, during one generation, in the secular policy of that country; whether the change is due to the wisdom or to the folly of its statesmen, or is merely owing to their attempts to reflect the changing phases of popular opinion; or whether, in any case, it is consistent with that principle of the continuity of foreign policy which is so often invoked,—these questions may for the present be left aside. All I am concerned with now is to affirm and to establish the fact, and to point out some of its consequences.

The fact itself is, indeed, veiled under various forms and conventionalities; but, at the first touch,—nay at the first breath,—these disappear and leave the fact naked. Mr. Gladstone's form was that his enmity and intended destruction were directed, not at the Turkish people, but at the Turkish governing classes,—the Pashas, Bimbashis, Onbashis, Kaïmakams, Zaptiehs, and representatives in general of Turkish authority, whom he would have turned out of Europe and kept out of it by force. Even now his hatred is reserved for these same classes, whom he personifies in the individuality of the Sultan,—"the Great Assassin," Mr. Gladstone is not ashamed to call him, even before the memory of Gordon has wholly faded from men's minds, or the conduct of the Prime Minister who abandoned him and left him to his death has been forgotten.

So, too, others—probably even the English members of the Ar-

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menian Committees, and certainly the average Englishman—would shrink from the idea of exterminating, or even expatriating, five millions of Turks, and would content themselves with deposing the Sultan and replacing him and his system of government by some other. What these good people,—most of whom are only ignorant and not wicked; who are, that is to say, the most mischievous kind of people in the conduct of any affairs, whether public or private,—what they ignore, or perhaps would even deny, but what is known to be an indisputable fact by all who know Turkey at all, is that the Sultan *is* Turkey; that he cannot be attacked without attacking all Turkey; that, so long as he remains Sultan, he and Turkey are one; that the Turks in general make his cause their own; that they feel praise and blame, approbation or insult, addressed to him as though addressed to themselves; that they are not less, but more, one with their monarch than any other European people, not excepting any people whatever; and that they would as readily take up arms at his call to fight, and if need be die, in his quarrel and for his cause as Britons would for their own beloved sovereign. His system of government may be bad,—in my own opinion it *is* bad, though with a wholly different badness from that believed in by those who have never seen it at work,—but he is the Padishah: he is even something more and greater; he is the Caliph. He is at once the temporal ruler of the state, and the spiritual head of that Islam which, perhaps alone of all the religions of Europe, is really believed and practised by those who profess it. He unites those temporal and spiritual powers which everywhere else in Europe have been dissevered; neither is there anywhere else in Europe, nor has been since the Pope was deprived of his temporal dominions, so complete, so undisputed an authority over soul and body as his. Enmity and the intent to destroy, directed at the Sultan, are, therefore, as much directed at Turkey and the Turkish people in general, even when these latter are expressly excepted by the enemy and the destroyer, as though no such exception were made; and it avails nothing to say that a statesman furnished with power, or a politician provided with words, would not injure Turkey or the Turks, but would only injure the Sultan. For Turkey and the Sultan are one; and every Turk is persuaded, to absolute conviction, that the day which sees the destruction of the Sultan by foreign arms, sees also the destruction of Turkey itself.

But if the form of separating the sovereign from the state, and of avowing a deadly enmity to the one while professing amity to the other, be vain and futile, much more so must be that other form which

now seems to have come into fashion, as though it were some improvement on Mr. Gladstone's. The solemn guarantee of the independence and integrity of the Ottoman Empire by Great Britain, France, Russia, Austria, Germany, and Italy in common, contained in Article 7 of the Treaty of Paris of 1856, as well as the equally solemn repudiation in Article 9, by the same six Powers, of any right to interfere, either collectively or separately, in the relations of the Sultan with his subjects, or in the internal administration of Turkey,—these stipulations have for forty years been part of the public law of Europe; and they were revived and reaffirmed nineteen years ago by Article 63 of the Treaty of Berlin. The latter treaty did indeed recognize the effect of the preceding war and conquest, by detaching provinces from the Ottoman Empire; and, to that extent, did recognize and accept the interference with its integrity effected by and resulting from the war: but, none the less, it guaranteed the integrity and independence of such of the Empire as remained, and none the less maintained the prohibition of interference by the Powers in the internal concerns of the Empire. This being so, a new form was sought whereby the public law of Europe and the treaty engagements of Great Britain might be reconciled with the enmity to Turkey, and the desire for its destruction, which were believed to animate a large number of those electors who make and unmake ministries. The form found was remarkable enough; and, being perhaps the most wonderful achievement of that very wonderful department of state, the British Foreign Office, it is fortunate that it has been set forth and explained in the plainest terms by the most indisputable authorities entitled to expound the views of that office: by Mr. Curzon, speaking as the mouthpiece of Lord Salisbury, and by Lord Salisbury himself.

Mr. Curzon's very frank account of it was given to a meeting at Southport on April 3, 1897, in the following words:—

"People are frightened of the bogy of the integrity of the Ottoman Empire. . . . I ask, and if I were appealing to any other audience of my fellow-countrymen at present I would say, 'Do not magnify the formula, "the integrity of the Ottoman Empire," or conjure it up as a spectre and then run away from it. Let us closely examine it; and then, perhaps, we shall not find it so formidable or menacing as we are given to understand . . .' What that integrity means is this—*that the distribution of the Ottoman Empire, as piece by piece it breaks up, must be undertaken by Europe*, and that it must not be in the power of any individual state to snatch what it thinks should be its share of the spoils . . . It is the most elastic formula in the world . . . It means that *the dissolution of the Ottoman Empire is to be slow*, that when it takes place it shall be effected by a peace-

ful and not a violent process, and that neither the irregular ambitions nor the greed of aggrandizement of any individual Power shall be allowed to precipitate the issue or plunge the Continent into a general war."

This then is the form: That the integrity of the Ottoman Empire means the dissolution of the Ottoman Empire and its distribution piece by piece, provided only that the dissolution be slow and that it be undertaken by Europe.

Dissolution is the destruction of integrity. Distribution, piece by piece, can only come when integrity is gone and dissolution achieved. But, says Mr. Curzon, dissolution, if slow, is no dissolution at all, but a maintenance of integrity; distribution, piece by piece, if made by Europe, is no distribution at all, but a maintenance of integrity. In short, integrity and disintegration, integrity and dissolution, integrity and distribution are one and all the same thing!

It would be very improper to smile at this most profound and statesmanlike declaration; for it has received a full confirmation and a larger explanation from Lord Salisbury himself, who has declared that in 1854, when choosing between the proposals of Russia and the defence of Turkey, England "put her money on the wrong horse." Now the proposals of Russia were proposals to agree to a partition of Turkey, whereby Roumania, Servia, and Bulgaria were to be detached from the Ottoman Empire and declared independent under Russian protection; while Egypt and Crete were to be handed over to England.

The disclosure of these proposals, which had been made secretly in 1853 to the English Ministry by the Czar, was challenged by the St. Petersburgh "Journal" of March 2, 1854; and this challenge led to the publication, by the Ministry of Lord Aberdeen—Lord John Russell being its Foreign Secretary—of Sir Hamilton Seymour's despatch of January 22, 1853, in which they were embodied. Lord Salisbury holds therefore that, instead of refusing and opposing, Great Britain should have accepted these secret proposals for a conspiracy to partition Turkey. Whether to entertain such proposals would have been consistent with the honor of a British Minister, or whether, if entertained, they could have been carried into effect, may well be doubted. But those questions need not now be examined. What is established is, that in this present year Mr. Curzon looks forward with approval to the slow dissolution and the distribution, by Europe, of the Ottoman Empire, and that Lord Salisbury thinks Lord Aberdeen and Lord John Russell were wrong in refusing, so long ago as 1853, to attempt to bring about its rapid and immediate dissolution and its distribution by Eng-

land and Russia alone. The present Ministry, in short, avow as plainly as possible that, in spite of the Treaties of Paris and Berlin, they contemplate, they expect, they are not prepared to oppose—nay, they are prepared to encourage—the destruction of Turkey, and regret only that this destruction was not achieved in 1853 by Lord Aberdeen.

Were any further proof required of this new attitude of hostility toward Turkey, assumed and avowed by Great Britain, it would be found in the conduct of Sir Philip Currie, the British Ambassador at Constantinople. For three years, beginning under the late, and continuing under the present, government, Sir Philip has made it his business to display British hostility to Turkey,—not less by his overbearing demeanor and attitude toward the Turkish Sovereign and government, than by his fertility in the invention of schemes of interference in Turkish internal affairs. In December, 1894, he had already considered; on January 19, 1895, he sent home the first sketch of; and in April, 1895, he propounded, a brand-new constitution, in sixteen clauses and thirty-two articles, for Armenia. This constitution was accepted, sanctioned, and promulgated by the Sultan, and has since been brought into execution, so far as its provisions—many of them absurd and some impossible—allowed. This was held to be so great an achievement, that on October 18, 1895, Lord Salisbury telegraphed to Sir Philip his "hearty congratulations on the success obtained." Those congratulations would hardly be repeated now, either by Lord Salisbury or by anybody else; for the plan has admittedly failed.

Sir Philip's next plan, proposed to his fellow-ambassadors on December 10, 1895, was the appointment of an international commission to investigate, and devise means for the reparation of, the troubles in that very Armenia which he had so recently endowed with a new constitution. This second plan was, however, promptly put aside by the Russian Ambassador, and ended, like the first, in failure; nor did any better fate attend Sir Philip's suggestion to Lord Salisbury, that the latter should "make some proposal to the Powers" in the sense of the plan. A third plan, however, was soon conceived by the busy brain of the Ambassador, who, on December 18, 1895, proposed "the establishment in Turkey of a responsible ministry." This plan was at once denounced by the Austrian Foreign Minister as "highly dangerous"; and it failed, like its predecessors,—only, however, to be followed by a fourth, the most ambitious of all. This fourth plan was born on December 19, 1895, when Sir Philip proposed to Lord Salisbury, in so many words, "interference on the part of the Treaty Powers." The

plan, as is known, was very summarily stamped upon by Prince Lobanoff, who, on behalf of Russia, declared it, on January 25, 1896, to amount to nothing less than "an infringement of the principles of European public law"; nor did the fourth plan ever show its head again. Since then there has been the Cretan plan and the plan for making a Treaty of Peace by a Conference of Ambassadors, between Turkey and Greece.

What it imports to remark here is, that these plans of the British Ambassador were all in themselves highly ambitious, completely revolutionary, entirely subversive of the Sultan's authority in his own dominions, contrary to the Treaties of Paris and Berlin, and equally inimical to the Sultan and to Turkey.

Thus the hostility of Great Britain to the Sultan, and her desire for the destruction of Turkey have been made manifest to all the world, and to none more plainly than to the Sultan and to the Turks themselves. Whether the partition of Turkey can indeed be effected, or what, if effected, would be the results thereof to Europe, need not be here inquired. What we are dealing with now is the new attitude of Great Britain, and its immediate consequences to herself,—consequences which there is too much reason to fear will prove, nay, have already proved, to be of the most momentous and injurious character.

Is it to be supposed that, confronted by this hostility on the part of Great Britain, the Sultan will not take such means as he possesses to defend himself? Is it to be supposed that the maligned and vituperated Moslems of Turkey regard with equanimity or unconcern the unparalleled violence of the abuse so long heaped upon them? Is it to be supposed that the 50,000,000 Moslems of India, who, equally with those of Europe, acknowledge the Caliph and weekly pray for him in their mosques, will fail to sympathize with their coreligionists in their indignation at the unmeasured denunciations of all Moslems and of Islam itself? Unless all these things are to be supposed, Great Britain must expect, sooner or later, to bear some very serious consequences of the hostility to Turkey and to Islam, now avowed by her statesmen and ministries.

Long ago, a warning note was sounded from India. In the "Times" of December 28, 1896, in an article setting forth the view taken by Indian Moslems on this subject, this passage occurred:—

"In the eyes of the orthodox Mussulmans the Sultan is not merely the 'Commander of the Faithful' throughout the Mahomedan world, he is also the represent-

ative of the wide conquests and once glorious traditions of Islam, the embodiment of the earthly supremacy of the faith in which Moslems live and die. . . .

The Indian Mussulmans recognize that the secular element in the position of the Sultan subjects him to secular influences and may compel his submission to secular restraints, very much as the princes of medieval Europe felt that the territorial claims of the Pope might involve him in war. It was a regrettable fact, but it was a fact which had somewhat to be reconciled with his religious headship; and, as a matter of history, it was reconciled alike by the Mahomedan Powers in regard to the Caliph or Sultan for the time being, and by Christian princes in regard to the Pope. They might often have to fight the secular ruler; but they generally spoke respectfully of the spiritual chief. The Indian Mussulmans were at one time willing to *take this reasonable view of the situation.*

What they complain of is that they have been driven, by the vituperation heaped on the Sultan by British agitators, to pay back unreason with unreason, and insult with insult. To most Englishmen with a sense of self-respect and a just regard for the national dignity, it must seem unworthy of a great people to hoot, as 'an assassin' and 'a ruffian,' a sovereign whom our Government professes to consider a friend. To the Indian Mussulmans it seems scandalous. They can understand the abuse of a declared enemy. *What they cannot comprehend is, that we should be addressing the Sultan at Constantinople in terms of polite remonstrance, and reviling him in England in terms of the grossest insult.*

The Indian Mahomedan newspapers which have reached this country during the past months have *gone through an ascending scale of protest, recrimination, and fierce menace, rising almost to threats.* This conversion of a great and powerful community, late among the most loyal subjects of the Queen, into angry malcontents, has been viewed with concern by those responsible for the welfare of India."

This warning of ten months ago may opportunely be recalled now, when Englishmen are asking, not without anxiety, what are the real feelings toward Great Britain of the Amir of Afghanistan and of the Afghans themselves—all, be it remembered, strict Moslems of the straitest Sunni sect. And he would be a bold man who would undertake to say that the British campaign of abuse of the Caliph, and the British avowal of enmity to Turkey, will not play, or have not already played, a part in determining the sympathies of the Afghan Amir, and still more of the Afghans themselves, against the avowed enemies of their faith and of its spiritual head.

But there may be, there probably is, more than this. Of the Turk it may be said, as the French school-book said of the badger, "*cet animal est fort méchant—lorsqu' on l' attaque il se défend.*" If the Sultan has used and is now using his Caliph's authority in order to stir up in India among the seething elements of discontent there, trouble for the Power which avows its enmity to him in Europe; if, feeling weakness at home, he has entertained the suggestion that he should use the power he has of thus defending himself abroad; if he has accepted the view that it would be politic to give Lord Salisbury's government something

to do in India in order to prevent it from continuing to do quite so much in Turkey; if he has been persuaded to play off Lord George Hamilton, Secretary of State for India, against Sir Philip Currie, Ambassador at Constantinople, and to make the former regret the days when the Sultan's authority as Caliph was a strong bulwark of the British Rule,—if all this has happened, who can blame the Sultan, or deny his right thus to act toward those British statesmen who have forsaken all the old British traditions of Eastern policy out of personal hatred to himself and settled enmity to his country? Like the wicked badger, when attacked, he is apt to defend himself.

It is not necessary, moreover, to suppose that the Sultan has himself initiated the preaching of hostility to Great Britain among the Moslems of India. Those Moslems themselves, as the extract from the "Times" shows, had begun to feel and to show disaffection, and to utter "fierce menace, rising almost to threats" at least ten months ago; and there can be no doubt that the Moslems of Turkey, sensible as they now are—in common with all Turks—of British hostility, would not be disposed to check, but rather would be disposed to encourage, this disaffection. The close and constant connection and correspondence between the Moslems of India and those of Constantinople, which are well known to exist, authorize the belief that this at least has occurred—what more we know not.

The Sultan needed not to move in the matter. It was only necessary for him to stand aside and to refrain from that constant action among Indian Moslems in support of British rule in India, to which Great Britain has long been indebted. She received the support derived from this action because she was believed to be a sincere friend to Turkey: she can no longer reasonably expect to receive it, now that she proclaims herself Turkey's enemy.

The continuity of British policy in the East has been rudely broken; in fact, the policy itself has been reversed. The traditional policy was friendship to or maintenance of Turkey; not because British statesmen loved the Turk, but because—with Metternich, who said, "if the Turk did not exist, it would be necessary to invent him"—they believed him to be a necessity to Europe and to India. The modern policy is hatred to and destruction of Turkey, whatever may result to Europe or to India. If this policy be persevered in and carried out to the end, its effects in Europe and in India will be more momentous, more unexpected, and more startling than even in Turkey itself.

THOMAS GIBSON BOWLES.

NOTABLE LETTERS FROM MY POLITICAL FRIENDS.

THE following letters have been selected from a large number received by me from personal and political friends during a period covering more than forty years; and, despite the lapse of time, they appear to me to retain their interest. Although some of them may have been written confidentially, many of the authors are no longer living; and it is believed that the publication of the letters will cause no regret to anyone.

I have added brief biographical and explanatory notes as occasion seemed to require. The letters, in many instances, deal with topics not yet become altogether obsolete; and it will be seen that most of the writers are still remembered as having been potential in the great crises of the Republic.

The present series includes letters from Henry Winter Davis, Thaddeus Stevens, Joshua R. Giddings, George Bancroft, and Henry C. Carey. My next contribution will include communications from a larger number of writers, including Horace Greeley and Charles Sumner.

HENRY WINTER DAVIS, born August 16, 1817, was elected a Member of the House of Representatives in 1854, the year of my election, and he was reëlected to the thirty-fifth, thirty-sixth, and thirty-eighth Congresses. He was an exceedingly brilliant and attractive man, classically educated, learned in the law, and, as I thought, the most eloquent speaker in the House of Representatives. With Senator Ben. Wade of Ohio, in 1864, he made the mistake of being a "kicker" against the renomination of President Lincoln; thinking the President was too slow in conquering the Rebellion. He was a distinguished member of the Committee of Ways and Means, and, with Wm. A. Howard, of Michigan, and myself, was a member of the sub-committee on the Tariff; doing excellent service.

Although not a Member of the House of Representatives when he died, in 1865, a eulogy was delivered upon him in the House of Representatives, and at their request, by his former colleague, Hon. A. J.

Cresswell. This is, I believe, the only instance where a private citizen has been thus honored.

I have many of his genial letters; but nearly all are so personal, having been written for me only, that I shall offer but a few for publication. After a service of four years, Mr. Davis was at home for two years (1861–1862) before he was again reëlected. Our conduct then of the war not being, at first, very successful, made our friends in the border States, such as Mr. Davis, of Maryland, very sensitive and, when neglected, provocative of criticism.

BALTIMORE, 1861.

MY DEAR MORRILL,

I shall feel greatly honored if you come over and spend a night with me, or as many nights as you can spare, and the more the better—before you leave Washington finally for home.

I shall be here till the 15th of August, and am all alone with a big house and nobody in it, but myself and the servants, and always ready to receive you. I dine at four, and if you come on the first afternoon train you will be in time for potluck.

I condole with you over the disgrace of Bull Run—but they who caused it will be retained in power for more mischief: and the country will have to supply their lack of brains with double streams of blood and money.

One hundred thousand men at Manassas a month later would have ended the struggle if they had had a *leader*. The failure was lack of Generalship in McDowell, not overwhelming force; but our force, if successful, was inadequate to improve a victory, if won. However we will talk these things over I trust shortly.

I should have been to Washington to see you and other friends whom I hold in green remembrance but I have special reasons for *not* going there. Please remember me kindly to inquiring friends, and say I trust if in Baltimore they will not pass me by.

Sincerely yours,

H. WINTER DAVIS.

MY DEAR SIR :

I confess that I am by no means satisfied with my silence touching Marshall's[1] speech. I had resolved to reply, but friends who had elec-

[1] Humphrey Marshall, of Kentucky, then a prominent Union Member of Congress, was elected, as was Mr. Davis, by the American party, and, though educated at West Point, he took part in the Rebellion as a general of volunteers.

tions approaching begged me to keep silence, since I should be quoted against them and might embarrass their canvass. I am always ready to take any responsibility touching my own interests, but I did not like to trouble friends, and I was silent. The speech produced its bitter fruit in Kentucky.

The same spirit is now at work to force a repetition of the follies of 1856 on us. Some men in the South, ambitious of defeat, or calculating on the election going to the House, and everybody going to them there, are trying to forestall public opinion in favor of certain aspirants to be called opposition, but to be made as Mr. Fillmore was made after driving off all the North, and hope to accomplish success in the mode above indicated. I fear the New Yorkers are as bad and impracticable on the other side. May I venture to hope for once the "extreme waywardness and perversity of men," which grieved Mr. Webster so much, will not plague us with the democratic yoke for another term.

There seems to be a good feeling in the North-west where the battle must be decided, but we can tell nothing until men get together in Washington. Yours truly,

H. WINTER DAVIS.

Aug. 1860.

BALTIMORE, 1861.

MY DEAR MORRILL,

Alas! for in this world, as in the next, to those who ask it shall be given: and it is not less true that, to men who do not ask, nothing will be given. Therefore nothing was tendered me at all. I presume no application was made on my behalf, for each person had his own friends to take care of, which was all very natural and very right.

If a cabinet appointment had been offered I should have accepted it, not for the honor, but for the work and responsibility. But that was prevented by Maryland friends—I mean what I say—it was my Maryland friends—*i.e.*, those who professed to be so, and thereby got the credit of telling disagreeable but sad truths against me which determined that matter. Fortunately I made no application and entered into no contest and took no pains to remove false impressions, and I am quite content with the result.

A mission I did not wish, for I did not wish to be out of the country at this time. . . .

Personally I am content; but no language can describe the irretrievable blunder of the Administration made in conferring its appointments abroad to gentlemen from one region of the country. The persons are

generally the ablest we have had to represent us for many long years: but what reason is to be assigned for this senseless greediness which has excluded from high honors everybody from the Slave States, where the President needs strength and where such a distribution would have averted the disaster in Connecticut and Rhode Island. Can they open the eyes and ears of men at Washington—and must they meet with utter overthrow in 1864 before they will understand that it is impossible for one half of the country to govern the other half?

Till the 4th of March the Republican organization was perfectly defensible: for the question was forced on you—the Southern whigs deserted you, you were obliged to submit or resist alone, and you rightly resolved on resistance. That it was successful, is to me an unspeakable happiness. In my humble way I aided in the great defensive stand over the ancient ways of our fathers. But it was always said that victory would be used to consolidate and reunite the solid masses of the two great regions who agreed in everything but the Negro Question, which was necessarily ended by your triumph. Circumstances unlooked for made this policy unexpectedly easy and more wise; for the Administration was forced into being the symbol of the National Convention: to it everybody was bound, however he might think on the Negro Question, who was resolved to maintain the existence of the Government. This element of power has been thrown away.

In Maryland I cannot tell how we shall get along. We can carry the State and substantially sustain the Administration if the people at Washington will follow my counsel in doling out local patronage. But that will not be done. The most I have any right to expect will be a division between the small squad of men who call themselves Republicans, and they are as injurious here as a Garrisonian is in your country, and the Union masses of the State. Still, if the prominent offices which attract the public eye are rightly disposed of, I can answer for the result. Of this even I am not assured: but at Washington men are consulted who mean to oppose the administration after the fashion of Harris, and Webster and Swann—and where that will lead you know. I trust my fears will not be realized.

Your offers to help me are very kind and highly appreciated: but I must stay at home and reason with this wicked and perverse generation, and struggle almost alone and unaided against the current which runs towards uniting our people with Northern Democrats in opposition to you. I shall always be glad to hear from you.

Sincerely yours,

H. WINTER DAVIS.

P.S. They still hack away at our bill. I amuse myself every now and then by picturing your disgust at some of the attacks on it. But I am convinced it will substantially stand the test. I do wish you would write a few articles exposing the ignorance and falsehoods combined misrepresenting it, and publish in the "Tribune" or "Times," and let me know when they appear. It is essential something of the kind be done. Give people some accurate idea of the percentage of the duties on the main articles, the policy of the discriminations, and point out the few really bad points in the bill, so that the people may discriminate.

H. W. D.

THADDEUS STEVENS was born in Danville, Vermont, in 1792. He was graduated at Dartmouth College in 1814, and subsequently removed to Pennsylvania, where he became prominent as a lawyer and a politician. Mr. Stevens was elected to Congress in 1848 and 1850, as a Member of the House of Representatives, and again in 1859, and there continued to be a Member until his death in 1868.

Physically he was a man of above the medium size, with a head and face indicative of marked character; but, like Byron, he had one club-foot which forced him to limp at every step, and sometimes, perhaps, added a sting to his temper.

His anti-slavery opinions were most conspicuous; and from 1863 to 1868 he was the radical leader, if not the dictator, of the House of Representatives, being equally able in argument, wit, and satire.

The antagonistic forces of freedom and slavery in 1859 and 1860 appeared to be sharpening their swords and implements for the impending great civil war. One day I heard Mr. Spinner, afterward appointed Treasurer by President Lincoln, offer to make a wager that there were not less than three hundred loaded pistols in the hall and galleries of the House.

It was a standing rule of the House that Members must speak from their seats. One day Mr. Stevens, while making a speech that was very unacceptable to Southern Members, had wandered into the aisle and far down toward the area in front of the Speaker's chair. He was at once loudly called to order by those he had offended, several leaving their seats and approaching him as if to drive him back. Whereupon some of our side of the House rushed up to his support. Being not far away, and thinking he might be unmindful of the rule, I got near enough to advise him to return to his seat. "I shall," said he, "when the Speaker gives the order; but I do not obey the order of slave-masters."

The next day it was reported that an opposition Member of the Committee of Ways and Means, of which Mr. Stevens was then chairman, had got near to him with a sword-cane in his hands, but, upon the remark of some one that a murderous intent was incredible, Mr. Stevens exclaimed, "Perhaps so, but d—n his propinquity."

His manner and matter are illustrated in this note:—

GRAEFENBURG, Oct. 19th, 1866.

HON. J. S. MORRILL,

Dear Sir: Being still unhung, it seems to be our duty to look a little after the hemp. It seems to me essential that we should hold a caucus not later than the Wednesday before we meet, Thursday at farthest. Now as you are chairman, may I ask you to notify our friends of a caucus on Thursday before Congress meets.

We have certainly grave things to consider and stern things to do, if we are brave enough. If we are brave enough! Yes, there is the rub. And how few brave men there are! I hope you are all well. I am not quite so yet.

THADDEUS STEVENS.

JOSHUA R. GIDDINGS, born in 1795, was one of the earliest pioneers of political anti-slavery, and was elected to Congress in 1838, where he coöperated with such Members of the House as John Quincy Adams, of Massachusetts, and William Slade, of Vermont. The rules of the House then forbade the discussion of slavery; and petitions only agitated its abolition in the District of Columbia and the Territories. My earliest service in the House was on the Committee of Territories, with Mr. Giddings and Mr. Grow of Pennslyvania—at a time when the Kansas question was uppermost.

In 1841, the "Creole," an American ship, sailed from Virginia for New Orleans with a cargo of one hundred and thirty-six slaves. The slaves on the voyage rose upon the master and crew; and after a brief conflict, in which they killed one man, they took the vessel into the British port of Nassau, where their right to freedom was conceded and protected. Great excitement followed. Mr. Giddings introduced a resolution in the House declaring that "Slavery was an abridgment of natural rights, and could have no force beyond the territorial jurisdiction that created it." Mr. Botts, of Virginia, thereupon introduced a resolution declaring the conduct of Mr. Giddings "unwarranted and deserving the severe condemnation of the people of this country, and

of this body in particular." By moving the previous question, Mr. Giddings was shut off from any defence; and the resolution was passed by one hundred and twenty-five yeas to sixty-nine nays. Mr. Giddings at once resigned his seat and appealed to his constituents to pronounce judgment on the case. He was reëlected by a large majority and sent back to his seat in less than six weeks.

The treaty of reciprocity with Canada (1854) was subject to termination after ten years; and I had introduced a resolution in the House of Representatives, giving the notice of one year required for its termination. Mr. Giddings was then our Consul-General at Montreal, having been appointed by President Lincoln. I had informed him of the resolution, and that I intended to support it with a speech. Thereupon I received the following letter:—

MONTREAL, Oct. 29, 1863.

MY DEAR MORRILL,

Mr. Howes handed me your letter of the 31st August relating to our reciprocity treaty.

As you are aware I was warmly in favor of that treaty, not from any pecuniary advantage to our people, but from a belief that it would increase our intercourse with Canadians and promote the feelings of good neighborhood and mutual friendship. But, so far as this object is concerned, the treaty has proven a perfect failure. The Canadians were as ready for war on the subject of the "Trent" as were the people of England. They greeted the traitors from the South as heartily, sustained the British ministry in permitting the "Alabama" and other pirates to go to sea and make war upon our commerce, as fully as the people of England.

It is a fact that while we were admitting the Canadians to our war markets free of goods they were sustaining the policy of the British ministry in sending the "Alabama" and other piratical ships to destroy our Atlantic commerce. Now God forbid that we should thus turn our cheeks to those who smote us so severely. True some papers say that this feeling was a little more frequent here, than in our free States, but although we had many good friends here, they dared not even send a petition or protest to England against this outrage upon justice as well as international law. And many of those friends say that if we would be respected we must show these people that we are as independent of Canada as Canada is of us.

I hope that a resolution requiring the Executive to give notice for

the abrogation of the treaty will pass, and that you will publicly avow the facts which I have stated as reasons for the abrogation. I also hope you will declare that as an American statesman you have no disposition to see the Canadas, with their mixed, mongrel population of French, Scotch, Irish, English, and American, annexed to the United States, until they cultivate a feeling of self-reliance and independence which shall accept of that separation from the mother-country which England is so anxious to establish.

And while I would not at present advise a repeal of the warehouse and bonding system, I would advise the introduction and discussion of a bill for that purpose in order to let the Canadians understand that we have it in our power to shut them up from all exports and imports during the six months of winter when navigation is impracticable.

I speak the opinions and feelings of many of our best friends resident here, not Americans merely, but English and Scotch. They feel that Canada will never prosper until she becomes self-reliant and develops her own statesmen and forms a character of her own.

I am desirous that you speak on this subject in such a manner as to maintain our own dignity and at the same time not offend Canadians, who should receive our pity rather than contempt. Let me know if I can furnish any particular facts.

Truly your friend,
JOSHUA R. GIDDINGS.

HON. JUSTIN S. MORRILL.

GEORGE BANCROFT, born at Worcester, Mass., October 3, 1800. graduated at Harvard University in 1817, and then went abroad, where he remained for five years, studying German and Italian literature, Plato, and theology. Returning to America in 1822, he was for one year tutor of Greek in Harvard University, and occasionally preached in neighboring pulpits. He also gathered materials for a history of the United States. If he ever entertained the idea of entering the clerical profession, however, he soon abandoned it.

In 1826, in a public address, he let it be known, that he was an uncompromising Democrat. Subsequently he was appointed, and served with honor, as Secretary of the Navy, and as Envoy and Minister Plenipotentiary to England, and to Germany. His reputation, however, was mainly achieved by his "History of the United States," written with much elaborateness and great wealth of learning.

In the later years of his life he was a highly appreciated resident of Washington, during the winter season. Having a large acquaint-

ance with distinguished men, both at home and abroad, he was everywhere a welcome guest. He was a good conversationalist, having a wide range of subjects, and it was always a pleasure to me to receive him at my house, where he was a not infrequent visitor. His interest in the work of Congress never seemed to abate.

New Jersey had sought to increase its revenue by the taxation of railroad travel and freight when passing through the State. This ill-timed economy was long ago abandoned, but the following letter of Mr. Bancroft will show how it fretted the public in 1865:—

NEW YORK, Jan. 14, 1865.

MY DEAR SIR,

In case the Madison Papers remained unpublished, you were so good as to bid me write to you, that you might make their publication certain.

I hope your influence will be exerted to secure the passing of the bill you sent from your house to the Senate against the New Jersey system of railroad monopoly and taxation of travel and freight through New Jersey. It is the most important question before Congress, next to slavery and secession. For if a State can tax at will all through freight and travel, farewell to any unity of the country. The subject is more weighty than has been thought: the right decision is essential to our union. Even the members of Zollverein in Europe are never suffered to tax travel and property *in transitu*. The power to do so is a power to break up our commercial system of mutual equality of States,—and uninterrupted commercial intercourse.

Very truly yours,

GEO. BANCROFT.

HENRY C. CAREY, son of Mathew Carey, born in Philadelphia, December 15, 1793, was in early life a successful business man, and afterward an eminent and voluminous author on the principles of political economy, and of social science. He did not agree with Adam Smith and other "free-trade" authors, but was an earnest Protectionist. He denied that political economy was the science of wealth, and insisted that its chief claim to attention was that it sought the promotion of the happiness of nations. Every improvement in the mode of production, as he taught, lessens the value of commodities. In all progressive countries, accumulated capital constantly falls in value when compared with labor. In America, labor has been constantly growing

in power to command capital; and the power of capital over labor has concurrently diminished.

Mr. Carey, it should be confessed, had superb confidence in his own opinions, and a scanty respect for such as differed from him. Sometimes he praised Members of Congress; but he seemed to scold with ease, claiming that they held "the essential duty of statesmen to be limited to the selection of tide-waiters and postmasters."

Lacking the compactness of statement and the felicity of language of Adam Smith, Mr. Carey is likely to have a permanent reputation. His high rank as a political economist is conceded on the continent of Europe; and in America he has such partisan antagonists as thrive on British theories, but no equal as an authority on the subject. He wrote me long and frequent letters—difficult to read but not difficult to understand, and always of more or less importance.

After the Tariff Bill had passed the House of Representatives, in 1860, Mr. Carey was very impatient at its long delay in the Senate. I knew it could not be passed so long as a majority of the Secessionists remained there. Mr. Hunter, of Virginia, was chairman of the Senate Committee on Finance, and rather reluctantly joined the fire-eaters of South Carolina; but Southern Senators, preferring allegiance to their own States rather than to the Union, were now rapidly deserting the Senate. I therefore wrote to Mr. Carey that he could urge the matter, if he chose to do so, by writing to Senators Wade and Wilson, which he did. They assured him that their anxiety was quite equal to his, and that the Tariff would be passed as soon as the Senate had the power.

Mr. Carey took a very deep interest in the passage of this Tariff law, because the duties were largely specific and also surely, but moderately, protective. The day after its passage in the Senate, and prior to its approval by President Buchanan, Mr. Carey sent me the following rather effusive note:—

DEAR SIR:

Accept my congratulations upon the happy termination of your tariff labours. You have now connected your name with what is destined, as I think, to prove the most important measure ever adopted by Congress.—With great regard

Yours very truly

HENRY C. CAREY.

Phila., Feb. 27/61.
HON. MR. MORRILL.

Mr. Carey was very impatient about the action or non-action of the Secretary of the Treasury, and wrote as follows:—

DEAR SIR:

Nothing less than a dictator is required for making a really good tariff.—Would to heaven you or I could fill the place for a week.

Pray let me know who it is that makes the present iron difficulty, and what, exactly, it is about. Perhaps I may assist in having it removed.

Cobb [of Georgia, Secretary of the Treasury,] could do all that is needed as well in 60 days as he will do it if you give him 600. He would do it, too, for California as well as for Boston.

I had an account, two days since, of the state of affairs among the poor people who have been driven out to Iowa, and it is far beyond anything that you could well conceive of. Half of them would return, if they had the means of so doing. Think of men walking barefooted, six or eight miles in search of a day's employment! Is it wonderful that immigration is at an end? Is it wonderful that ship owners and railroad owners are being ruined? Or is it wonderful that Iowa, Wisconsin, Minnesota, Indiana, and Illinois are so completely down that New York merchants have refused to sell to those States except for the cash paid down before the delivery of the goods? I think not.

Yours truly,

HENRY C. CAREY.

Phil. Ap. 18/60.
HON. MR. MORRILL.

Mr. Carey, like Mr. Bancroft, was a Sound-Money man, and, in 1862, opposed to paper legal-tender money.

DEAR SIR:

Many thanks for your excellent speech just now received and now re-read. With nearly every part of it I agree most thoroughly, having had the greatest dread of the legal-tender experiment. Happily, in the four weeks that have since elapsed there has been a total change in our prospects, giving reason to believe that your predictions as to the duration of the war, though made in the darkest day we have ever seen, are about to be realized, and that we have at length arrived at "the beginning of the end"—Heaven grant that such may prove to have been the case!

There is one tax that I have long wished to see imposed, and would

now urge upon your committee, if I could see how it could be collected —and that is a tax on the estates of absentee owners, of from five to ten per cent of the incomes. Our whole system, for nearly thirty years, has tended to the production of absenteeism, one of the greatest curses that can afflict a land, and the result exhibits itself in the fact that from ten to fifteen millions are annually required for the support of our own people domiciliated abroad. One man from this city receives, as I believe, $150,000, all of which he expends in Paris, while leaving to us all the care and all the expenditures required for preserving his property for his use. Were I dictator I would make him pay one-half of it into the public treasury, but as I cannot, I would be content with a little of it. Pray think of this matter. If there was any way of accomplishing it you might get millions a year at the least, from this source. . . .

The terribly long bank-bill, which has been printed *will not work*,[1] if enacted into a law as it now stands. It is full of things that banks are *to do*, but there is not a word in regard to things that they are to *get* in return. Of all the questions in political economy there is no one that is more simple than that of money, and yet it is so bedeviled by men who fancy themselves economists, that it is made already incomprehensible. Did you ever read a tract of mine called "Money"? I think I sent you one, but if not, will now do so, if you have any desire to see how simple are the laws by which the medium of precious metals is formed.

Is there any chance of a bankrupt-law? It should be passed. I congratulate you on the general improvement of our condition. I remain with great regard,

Yours truly,

HENRY C. CAREY.

Phil' March, 3d 62.

HON. MR. MORRILL.

DEAR SIR:

With sufficient and assured protection, we should in ten years, have iron so cheap that it would be exported in place of gold. To that end, investments would be required, to the extent of 60, 70, or perhaps 100 million of dollars. To secure the makers of such investments, confidence must be produced among those who have capital—but the confidence will never arise so long as Congress shall deem it necessary to

[1] But the Bank Bill did work, and worked remarkably well.—J. M.

insert in our tariff-bills provisoes like that in regard to iron which finds a place in the bill that you have just reported.

Whatever may be the number of years now remaining to me I would this day give one half of them if I could persuade my countrymen to look at the iron question in the light in which it merits to be viewed. All the power which the government is now exerting is derived from the coal and iron mines, and yet, coal is selected from among all other raw materials to be saddled with a tax, that will be most injurious, and iron is selected from among all manufactures to have protection granted by the shortest measure. Such would not be the case, could it once be seen that coal and iron are great national questions, and not merely of interest to miners and manufacturers.

What I desire to see is the adoption of a policy that will fill the hills and mountains of the South with miners of coal and ore, and makers of iron. Let that be done and you will tie the Union together in such a manner that nothing can ever rend the parts asunder, and you will place Slavery so entirely under your feet that it can never again raise its head. That, however, will never be accomplished so long as you shall continue to believe in the advantage of such provisions. Pray think again of this matter.

Having done us all the mischief in his power, John Bull is now, as I fear, to be repaid for all his mischief by permission to open again his retail warehouses in New York, paying his duties at any time within three years. Rely upon it, this is a sad mistake, as you will yourself believe before the lapse of many years.

I am very glad that you have taken care of my poor pen-making friend. Let the duty stand as you have fixed it, and the whole of that, apparently small, but really great, branch of business, will be transplanted to this side of the Atlantic.

Thus far, we have been tools in John Bull's hands, and the effects exhibit themselves in the necessity for fleets, armies, and heavy taxes. The one way to get clear of him is to pursue such a policy as will develop the natural resources of the earth. . . . Excuse me for troubling you with this and believe me, with great regard,

Yours very truly

Phil., June 22, 1862. HENRY C. CAREY.

HON. MR. MORRILL.

More letters of Mr. Carey might be submitted, but those of others more familiar to the public will hereafter be presented.

JUSTIN S. MORRILL.

OUR NEED OF MERCHANT VESSELS.

SIGNS and conditions hold out the promise that in a relatively short time the United States will again engage on a large scale in the business of ocean transportation,—so long neglected that, to two generations, our former prominence in this honorable trade is only a tradition.

The most important condition essential to the restoration of our merchant navy has been a supply of the chief material of modern marine construction—steel—at a cost which would enable our shipbuilders to enter into competition with foreign shipbuilders in the unrestrained rivalry which necessarily obtains on the high seas. When wood was the chief material used in shipbuilding, our forests gave us such an advantage that the United States was rapidly becoming the first maritime power. During the forty years between 1820 and 1860, the tonnage of the United States registered for foreign trade increased fourfold,—from 619,000 tons to 2,550,000 tons,—while in the same period the tonnage of the British Empire only doubled—from 2,650,000 tons to 5,710,000 tons. The increased use of iron and steel for structural and other purposes, on the land as well as on the sea, has revolutionized many industries. Especially has it closed shipyards in some places, and stimulated or established them in others, regardless of national limits of territory and of the legislation of nations.

Thirty-seven years of the era of steel, the beginning of which in this country may be roughly fixed at 1860, have elapsed, and during this time the tonnage of the United States registered for foreign trade has shrunk to barely one-fourth of its proportions before the war of the Rebellion: during the same period, the tonnage of the British Empire has more than doubled. But Great Britain's preëminence as a producer of bountiful and cheap steel, to which she owes the foundation of her rank as the first of shipbuilding nations, is now not only threatened, it is surely and rapidly passing away. Her area of production is necessarily limited, and the inventive powers of her people must be kept at high tension in devising processes of economy to overcome the increasing cost of production incidental to the sinking of ever-deeper shafts. In the United States, the relatively recent developments

in iron and steel in the Lake-Superior region and in the South are the certain indication of the undisputed rank of this country in the near future as the world's great producer of cheap steel.

The possession of abundant and cheap steel, however, is but the first of the conditions which must be satisfied before we can hope for mercantile rank on the sea commensurate with our aspirations. With it must be acquired the skill to use it in marine construction. And the large expenditures of the United States upon a modern navy during late years have done much more than provide for the national defence. They have, in effect, established schools for the training of shipwrights, who have thus acquired the skill and the experience in the use of steel in shipbuilding, that is as necessary to the creation of a merchant navy as the material of construction itself. Only twelve years have elapsed since President Cleveland invited the country's attention to the unsatisfactory condition of our navy. The response of the people and of Congress to facts then presented was prompt and practical. For the last ten years, we have spent an annual average of $25,000,000 on the navy. For the previous decade, our yearly expenditures, for that purpose, were less than $15,000,000. The considerable increase in the appropriations for the building of war-vessels has created a condition necessary and valuable to the construction of steamships for ocean trade.

It is possible that we have put the cart before the horse. In theory, a navy—in large part at least—is designed for the defence of the commercial marine under the national flag. We have created the navy to protect; and it now apparently remains to create the merchant fleet to be protected. Whether our method has been logical or not thus far, it is certain that the expansion of the navy, perhaps even its preservation in its present strength, will, in a very short time, depend on the attitude of the people and of Congress toward the merchant marine. Several years ago the note of warning was raised by our most eminent authority on naval affairs. Referring to our navy, Capt. Mahan wrote:

> "Can this navy be had without restoring the merchant shipping? It is doubtful. History has proved that such a purely military sea Power can be built up by a despot, as was done by Louis XIV; but, though so fair seeming, experience showed that his navy was like a growth which, having no root, soon withers away. But in a representative government any military expenditure must have a strongly represented interest behind it, convinced of its necessity. How such a merchant shipping should be built up, whether by subsidies or free trade, by constant administration of tonics or by free movement in the open air, is not a military, but an economical question."

It is certainly worthy of comment that while the merchant marine and the navy are logically inseparable, and naturally grow or decline together, the attention of Congress for some years past has been fixed almost wholly on the latter. That we are not without company in this state of affairs is shown, however, by the following expressive remarks of "Lloyd's Gazette" a few weeks ago:—

> "We go on spending millions upon the Royal Navy, ostensibly for the purpose of protecting our shipping, and we have this year taken the bold step of denouncing certain commercial treaties in order that our Colonies may have a free hand in tariff matters; but to the welfare of the mercantile navy, which alone makes the Empire and its trade possible, Government and Parliament seem supremely indifferent. Some day there will come a rude awakening, perhaps when it is too late. Meantime the shipping interest has to live on promises, or to accommodate itself to peddling legislation such as would be laughed to scorn by any nation which was not accustomed to the chronic snubbing of its mercantile marine."

Whatever may be the facts about the British Parliament, it is certain that the Congress of the United States is reasonably responsive to the popular wish. If Congress has given time and money to the navy and has given less attention to the merchant marine, it is doubtless because, through intelligent, harmonious, and persistent efforts, public interest has been awakened in the navy and Congress has felt the pressure and responded to it; while there has been no such interest aroused and no such influence exerted in behalf of merchant shipping. The success which in a few years has attended the endeavor to rehabilitate the navy is full of promise for the success which would attend similar efforts in behalf of a restoration of our maritime rank. Such an effort is apparently to be made at the coming session of Congress. A committee or informal commission of a score of the principal shipbuilders, shipowners, and Admiralty lawyers of the country, representing the Atlantic, Pacific, and Lake marine interests, has been assembled, mainly at the instance of the Hon. William P. Frye, chairman of the Senate Committee on Commerce. This committee, acting through him, expects to be prepared to submit to Congress in December a project which shall have at least these merits and practical advantages: First, it will embody the views of men who are in daily business contact with shipping problems; second, it will, if practicable, be liberal enough in its principles, yet so precise in its applications, as to create a policy which will endure long enough to have a fair trial even under possible changes of party control; third, it will have, from the outset, influential support from all the maritime sections of the country.

The water-borne commerce of the United States may be divided into three geographical areas. The first, and by far the greatest in volume, is the trade wholly between domestic ports, including Alaska, known as the coasting or coastwise trade. The second area is the trade between ports of the United States and nearby foreign ports, such as the ports of British North America, Mexico, Central America, the West Indies, and the South-American ports of the Caribbean. This trade is not in its nature essentially different from much of the coastwise trade; but political divisions render it subject to different laws. The third area is that of deep-sea navigation, or of trade across the Atlantic or Pacific, or the long voyages to South-American ports beyond the Caribbean. These three divisions are made here arbitrarily solely to demonstrate the elements of strength and weakness of our shipping.

The coasting trade of the United States, including the trade on our rivers, canals, and on the Great Lakes, as well as the trade between our ports on the Atlantic, Pacific, and Gulf seaboard is enormous in extent. The Treasury Department does not publish the statistics of this trade, though it has recently decided to do so for the future. Including the repeated entries of vessels, our coasting trade will be found to amount probably to 125,000,000 tons annually, and perhaps even more. The entries in the coasting trade of the United Kingdom amounted last year to 53,000,000 tons.[1] We have reserved our coasting trade strictly to vessels under the American flag, and other nations have followed the same practice, though several countries open their coasting trade to vessels of a foreign nation that grants the privilege reciprocally to their vessels. The only competition to which our merchant marine in the coasting trade is subjected is that of the railroads. In round numbers it comprises 21,500 vessels, of nearly 4,000,000 gross tons. In it are included all classes of vessels, the floating palaces of Long Island Sound and the Hudson River, the enormous coal and iron-ore carriers of the Great Lakes, the sea-going steamships from New York to New Orleans and other ports, as well as the canal boats, barges, small fishing vessels, ferry boats, and shipping in the uncounted forms in which it is familiar to all.

[1] The word "ton" when used with reference to the merchant marine is a measure of capacity, meaning 100 cubic feet devoted to the carriage of cargo or passengers, unless gross tons are specified, where the entire cubic contents of the vessel, including engine and boiler room, crew quarters, and other portions not available for earning money, are comprised.

As both termini of a voyage in the coasting trade are in the United States, the trade is wholly subject to our own laws and we may regulate it at will without regard to the laws of other nations. A different situation, however, exists in the foreign trade, where one terminus of the voyage is in a foreign port and subject to foreign laws. In legislation relating to this branch of navigation,—in which other nations necessarily share,—one must keep constantly within sight the legislation of other nations. Navigation in the foreign trade may be divided into the second and third areas.

The second area of trade is that between the United States and nearby foreign ports in British North America, including trade across the Great Lakes as well as by sea, with Mexico, Central America, and the northern coast of South America, to the mouth of the Orinoco, the West Indies, and Hawaii. The tonnage of vessels which entered the United States in this trade for the fiscal year 1896 was 9,487,577 tons, of which 4,469,966 tons, or nearly one-half, was American. The tonnage covers, of course, the repeated voyages of the same vessel; and as the voyages in many instances are short, the same steam vessel will often make thirty or forty trips a year in this trade. The tonnage actually employed in this trade is less than 1,000,000 tons, its activity swelling the tonnage entries. For this trade, which we share on substantially equal terms with foreign competitors, we enjoy special advantages. None of the countries or provinces with which it is conducted are the centres of any considerable shipbuilding, and the majority of the foreign vessels used have thus to be brought across the Atlantic for the purpose. Again, propinquity, the closeness of trade relations, and what may be vaguely termed our political influence in this sphere appreciably encourage the employment of American vessels.

The third area is that of transoceanic or deep-sea navigation, embracing trade between the United States and the continents of Europe, Asia, Africa, Australia, South America below the eighth parallel of north latitude, and the islands of the Pacific, except Hawaii. The voyages in this trade all exceed 2,000 miles, and the number which are possible for the same vessel during a year is small. The American Line steamship "St. Louis" cleared from New York to Southampton fifteen times during the fiscal year, thus giving her for the year a record of about 92,000 nautical miles. This record, I believe, is unbroken in the annals of deep-sea navigation, but the statement is made subject to correction. Four-fifths of our exports and imports by sea are carried in this third area of transportation. The tonnage of

American vessels entered in this trade during the fiscal year 1896 was only 726,354 tons, while the tonnage of foreign vessels amounted to 10,775,253 tons. Allowing for repeated voyages, the tonnage required to carry on this trade is about 3,500,000 tons. It is in this area of trade that the American flag has almost disappeared, and it is this phase of navigation that should receive the attention of the people and Congress.

The merchant vessel—of which THE FORUM has asked me to write —exists to make money. It is a business venture; and its construction and operation must be in accord with the understood laws of trade. Of course, to the minds of most men, the sea is inseparable from sentiment. Even the begrimed tank steamer, starting out with its cargo of petroleum on the tedious voyage across the Atlantic, suggests more of romance and less of "business" to the indifferent onlooker, than the "vestibuled" express, crossing the continent at sixty miles an hour. The work of the coal-passer or fireman, the most numerous class on the modern merchant vessel, does not differ essentially in its surroundings and nature from that of the miner, and is much less hazardous, yet about him we are still disposed to envelop the glamor that in old days was the sailor's. The part of sentiment in the conduct of men's affairs is not decried or belittled. To ignore it in any economical theory or problem would be as unwise in the legislator as it would be for the navigator to fail to keep daily in mind the difference between the true and the magnetic pole. But sentiment, in the consideration of a business problem, is to be applied as a correction to conclusions reached from study of the facts: it is not an instrument of precision by which the facts may be observed and ascertained.

The success of a merchant vessel under any flag depends on its ability to carry goods or passengers more cheaply, more quickly, more safely, or more regularly than they can be carried by its competitors. Economy, speed, safety, and regularity are factors of varying weight, sometimes one and sometimes another counting for the most; but economy is the ever-present consideration. The factor of economy in the case of a merchant vessel may be divided into (*a*) cost of construction and (*b*) cost of operation. The cost of construction—other things being equal—determines the place where a vessel for deep-sea navigation will be built. The cost of operation, under like conditions, will determine the flag under which she will sail. The cost of construction comprises wages of labor, cost of material, and cost of superintendence, this last term including those expenses which depend

on whether one or many vessels are built. The cost of operation comprises those factors which depend on original cost of construction, such as interest on capital invested, insurance and depreciation, and wages and supplies of officers and crew, coal, and taxes.

A concrete case will best illustrate the operation of these factors. Let us assume that a capitalist of any nation desires to operate a cargo steamer in the foreign carrying trade. The wages in French shipyards are lower than in British or German yards; the cost of material does not differ greatly in German and British yards; but the British shipbuilder builds many vessels from the same model, has a force of trained workmen almost constantly employed, and can consequently turn out a vessel more quickly than others. The resultant of the factors which enter into first cost of construction is in favor of the British builder; and purchasers, be they Americans, Germans, French, or Norwegians, do resort in large numbers to British yards. Fully 15 per cent of the cost of operation—interest, insurance, and depreciation on capital invested—depends obviously on the first cost. This factor, fixed at the start, can then be omitted in considering the flag under which the supposed steamship will sail. Wages on British vessels are higher than on any other, except American vessels; and the Plimsoll load-line law fixes the amount of cargo which a British vessel can carry below that permitted under other flags. These factors have reduced the amount of merchant shipping under the British flag below what it otherwise might be, and greatly increased of late years the Norwegian merchant marine, which offers as advantages to shipowners, first, excellent sailors of orderly and industrious disposition, willing to serve for relatively low wages; second, the least restraints by legislation; and third, a flag which will be neutral under almost all conceivable mutations of Continental politics.

The deck of a merchant vessel is doubtless part of the soil of the nation whose flag she flies; but that flag is no longer a certain index of the nationality of the shipwrights who built the vessel, or of the seamen who man her, or of the capital which paid for and operates her. A British-built steamship, with a German crew, under the Belgian flag, navigated for the profit of Americans, is not merely a possibility under the existing laws of nations, but an industrial fact. In all computations as to the income to be derived by the United States from a larger participation in the foreign carrying trade, the fact must not be ignored that we already receive the profits of that trade to a very much greater extent than the tonnage of vessels in the deep-sea trade under the

Stars and Stripes indicates. Just as foreign capital amounting to many millions is invested in American railroads, so considerable amounts of American capital control or draw profits from shipping under foreign flags.

The nationality of a vessel is no evidence of the citizenship of the crew. The laws of the United States require that the master, watch officers, and engineers and pilots of American vessels shall be citizens of the United States. The French law goes farther in one direction, and provides that two-thirds of the crew shall be French, while the British law goes to the other extreme, not even requiring the master to be a subject. Most maritime nations content themselves with the requirement that the master shall be a citizen of the nation under whose flag he serves. At present less than one-third of those manning our merchant vessels in foreign trade are citizens, and many of these have become such by naturalization in order to be eligible for promotion. The native-born American has almost wholly ceased to go to sea, except in the navy or as master or mate or engineer of a merchant vessel. The reasons are inherent in the conditions of our industrial growth and are not to be overcome by legislation.

Individually the people of the United States desire the cheapest, safest, quickest, and most regular transportation of their products, whether by rail or by water, between domestic ports only or between domestic and foreign ports. Other things being equal, the exporter of beef, or wheat, or petroleum cannot ship to the Continent by an American-built vessel under the American flag, while a rival exporter ships by a foreign-built vessel under a foreign flag, if the cost of building and operating the American ship is appreciably the greater, necessitating higher freight charges. Collectively, however, the people of the United States are not moved solely by a contemplation of the results of the balance-sheet, though those results cannot be safely ignored. The correction must be made for sentiment, for interest in the expansion of our commercial influence abroad, for the wish for a respectable appearance on the high seas, and for the earnest desire of every right-thinking American that this country shall again have the importance, self-reliance, and strength which have always belonged to nations able to build and navigate a formidable merchant fleet. An American may take pride in a "China," though under a foreign flag; for American enterprise sends her forth. He may take still more pride in a "Paris"; for, though built abroad, she flies his country's flag. His pride is greatest in a "St. Paul," which is the evidence to nations that when its

mind is made up to do so, this country can and will build ships unsurpassed and will sail them.

The American exporter desires the cheapest transportation for his exports. The American shipowner desires that the transportation of exports be confined to vessels under the national flag, as far as practicable, but wishes latitude to buy his vessels and employ his crews where he chooses. The American shipbuilder desires that the shipowner shall buy his ships only in American yards. The American seaman desires that crews shall be composed of citizens. The American people all desire an American merchant marine, which must compete with the shipping of foreign nations on the high seas, that cannot be controlled by the legislation of one country. The problem of reconciling these conflicting desires is the problem before the informal commission representing various interests, to which reference has been made.

The difficulties in the way of such reconciliation might seem wellnigh insuperable, were it not for the fact that, within a limited sphere, they have been already overcome in a manner which appears to have been acceptable to the country. A modern American merchant marine became a possibility from the time that a liberal policy of naval construction was undertaken under the first Administration of President Cleveland. Legislation, and the raising of the American flag over the "New York" during President Harrison's Administration, made the possibility a probability. The launch of the "St. Louis," under President Cleveland's second Administration, made the probability a fact. We have a transatlantic express steamship line equal to that of any nation, and superior in essentials to most lines. We know precisely how it was created. We know that the method of its creation is in accord with the conditions under which competition for the deep-sea carrying trade is conducted. The "American" line is not an experiment. Like the "White Squadron," as far as it goes, it is an accomplished and satisfactory fact. All sections of the country and all parties have joined in framing and maintaining the methods by which present results have been attained. If the policy under which the construction of a creditable navy has made good progress is to be continued and expanded, is there any reason why the concurrent policy under which the beginnings of a creditable merchant fleet have been made, should not also be continued and expanded?

EUGENE TYLER CHAMBERLAIN.

THE PROTECTIVE FEATURES OF "SECTION 22."

THE men who framed and put the finishing touches upon the Tariff Act of July 24, 1897, managed to express in one short section almost as much true Americanism as is to be found in all the other sections of the Act combined. Section 22 not only expresses exigent requirements of the present day, but it voices the faith and courage of the men who shaped the destinies of this country. It at once sets up an effectual barrier against the aggression of the politico-commercial Government of Canada upon American interests, and corrects an egregious error of "free-tradism" which has crept into our relations of maritime reciprocity.

In the following reprint of Section 22, that which is old is shown in Roman type, and that which is new, in italics. So much of former repressive legislation as has been eliminated is included in brackets:—

"Sec. 22. That a discriminating duty of ten per centum ad valorem, in addition to the duties imposed by law, shall be levied, collected, and paid on all goods, wares, or merchandise which shall be imported in vessels not of the United States, *or which being the production or manufacture of any foreign country not contiguous to the United States, shall come into the United States from such contiguous country;* but this discriminating duty shall not apply to goods, wares, or merchandise which shall be imported in vessels not of the United States, entitled *at the time of such importation* by treaty *or convention* [or any Act of Congress] to be entered in the ports of the United States on payment of the same duties as shall then be payable on goods, wares, and merchandise imported in vessels of the United States, *nor to such foreign products or manufactures as shall be imported from such contiguous countries in the usual course of strictly retail trade.*"

A careful examination of this comprehensive piece of legislation exposes clearly the fact that it is logically articulated, that it involves no complication of construction, and that upon its face the intent of the legislator is so clear that its meaning is beyond question.

Let us first consider the precise barrier which this intensely expressive enactment sets up against Canadian aggression. This has already

found practical illustration in concrete cases which have confronted the Administrative branch of the Government. Within two weeks from the time the new Tariff Act became law, the Collector of Customs at Detroit reported to the Secretary of the Treasury the importation at that port of ninety thousand dollars' worth of diamonds from Canada, and asked if the 10-per-cent discriminating duty provided in Section 22 should be levied upon it. At about the same time the Collector of Customs at Chicago, Illinois, reported the entry at that port of an invoice of tea brought from Japan in a British ship to the Canadian port of Vancouver, and transported across the continent over the Canadian Pacific Railway and its connecting rail lines under consular seal to Chicago. The Collector at Chicago reported this case to the Secretary of the Treasury and asked for instructions as to whether the discriminating duty mentioned in Section 22 should or should not be imposed upon this tea. The Secretary referred both these cases to the Attorney-General of the United States, who, on August 11, in deciding the first case, stated that, in view of the fact that the diamonds in question were the product of a foreign country not contiguous to the United States, but that they had come into the United States from a contiguous foreign country, they were subject to the discriminating duty of 10 per centum provided in Section 22, without any regard to the question as to whether they were brought into the United States in a vessel or in a railroad-car.

Such importations from contiguous countries, as well as the border trade referred to in the last clause of Section 22, constitute a relatively small part of the trade between the United States and contiguous foreign countries.

At the time of writing, the other case has not been decided. This case involves considerations of great importance touching the relations of commerce and transportation between the United States and the Dominion of Canada, as well as the exigent question of adequate protection to the American merchant marine, to which the political party now in power is pledged in its platform of 1896. This will become evident from the following historical statements:

About the year 1848, the line of Canadian canals connecting Lake Erie with ocean navigation at Montreal was completed. The Canadian Government, as owner and operator of this line of canals, then became a sharp competitor of the State of New York, as owner and operator of the Erie Canal. Montreal also became a competitor of the city of New York. Such competition, however, now plays a very unimportant part

in the great contest for trade as between the West and that State of the Atlantic seaboard, or as between the West and foreign countries. But the forces of nature oppose it. The St. Lawrence River is closed by ice for six months of the year, and greatly obstructed by fogs for two months more; thus reducing unimpeded navigation by that route to about four months in the year. This, and the extensive facilities now afforded for transportation by rail, have forced the Canadians to seek ingress from and egress to foreign countries beyond the sea through Atlantic seaports of the United States. Thus was inaugurated what is known as

The United States and Canadian Transit Trade.

This trade had its origin in that freedom of contract which has inspired the growth and evolution of the American railroad system. During the winter of 1848–49, certain foreign goods consigned to Montreal arrived at the port of New York, and were there placed in a Government bonded warehouse. Thereupon the Collector of Customs at New York propounded to the Secretary of the Treasury this question: If foreign goods can be transported from a ship to a bonded warehouse, and subsequently be transported from the warehouse through the streets of New York to a ship for reëxportation to a foreign country without payment of duty in the United States, why may not goods be delivered on board a canal-boat, or on a railroad-car, to be sent through the United States to Canada under proper regulations for the protection of the revenue from customs? The Secretary acceded to the view expressed by the Collector; and thus was inaugurated what is known as "the foreign transit trade." This has assumed large proportions, mainly through the ports of Portland, Maine, Boston, and New York. For many years this trade has been carried on during the entire year over American and Canadian railroads.

Another branch of the United States and Canadian transit trade, commonly known as "the domestic transit trade," came into existence in March, 1855, upon the completion of the railroad suspension bridge across the Niagara River, about two miles below Niagara Falls. Here again administrative discretion met the exigency. In the absence of any law upon the subject, a commercial possibility was again interpreted as implying a commercial privilege. Under adequate regulations for the protection of the revenue from customs, Canada allowed goods to be transported from Suspension Bridge to Detroit and *vice versa* without payment of duty; and the United States Government, in

pursuance of Treasury regulations, allowed such goods to reënter the United States without the imposition of duties.

Not only are goods allowed to pass freely between the two countries in the conduct of the transit trade without payment of duties, but the custom has come into vogue of allowing the locomotives and cars of one country to pass into and out of the other country without payment of duty. This arrangement differs radically from the rules applying to vessels under our navigation laws.

The transit trade had its origin and justification on the eastern side of the continent in the conditions of ice and fogs, and of interjecting territory. These conditions gave to it an adequate reason for existence. But the extension of the privileges of the transit trade to the western side of the continent, where no such justifying conditions exist, has caused much trouble, and has led to an assault by the politico-commercial Government of the Dominion of Canada upon American shipping interests, upon American seaports on the Pacific Coast, and upon American internal transportation lines.

Besides its extensive canal system, the Dominion Government built, and now owns and operates as a Government railroad, the intercolonial railway from Montreal to Halifax, constructed at a cost of about $55,000,000. That Government has also constructed and now operates certain other railroads of a local character. But the construction of the Canadian Pacific Railway, at a cost of about $215,000,000, is the heroic work of the Dominion Government. This amount, including cash contributions, cost of road, Government lands, guaranteed bonds, etc., was donated, as a matter of governmental policy, to the Canadian Pacific Railway Company, a private corporation. The Dominion Government, however, retains a commercial and political control of its operations, which causes it to be classified as a "Government line."

The Dominion Government now owns, operates, or controls an extensive system of canals and river improvements and about 13,000 miles of railroad. This necessarily imposes upon that Government a degree of responsibility for the commercial welfare of the Dominion which has no parallel in the conduct of the Government of the United States. For this reason, the Government of the United States is always at a disadvantage in its relationships of commerce and transportation with Canada, for while the attitude of the Government of this country toward foreign nations is always ingenuously political, that of Canada toward the United States is always deftly commercial.

The Canadian Pacific Railway system, extending from St. John,

New Brunswick, to Vancouver, British Columbia, with its various lines, leased, or operated for owners, has a total length of 7,250 miles.

As already stated, from the time when the Canadian Pacific Railway was completed until now it has been operated in a manner aggressive toward American interests. A clear understanding of this fact involves a brief reference to organic features of the transit trade, as well as to the provisions of statute law, of treaty, and of Treasury regulation that determine our Canadian relationships.

Section 5 of the Act of July 28, 1866, legalized "the foreign transit trade," while Section 6 legalized "the domestic transit trade." Section 6 empowers, but does not make it obligatory upon, the Secretary of the Treasury to establish new "transit" lines whereby goods may be transported from one port or place in the United States through contiguous foreign territory to another port or place in the United States without payment of duty. This Act was passed fifteen years before the work of construction on the Canadian Pacific Railway was begun.

The only provision of treaty as between the United States and Great Britain in regard to the transit trade is to be found in Article XXIX of the Treaty of Washington, concluded May 8, 1871—ten years before the Canadian Pacific Railway Company was chartered.

The second paragraph of that Article grants to citizens of the United States the privilege of importing goods at ports of Canada and of transporting them through that country without the payment of duty. This is a privilege which the Government of the United States can accept or reject at pleasure. It has no binding force whatsoever except upon the Dominion Government. Both President Cleveland and President Harrison expressed the opinion that this article of the Treaty of 1871 had been abrogated. This however is a controverted question. In the opinion of able lawyers, the whole transit trade was abolished by the terms of Section 2860 of the Revised Statutes.

The Canadian Pacific Railway was opened for traffic in June, 1886. The officers of that company, with an assurance inspired by the aggressive Dominion Government, of which it is the *alter ego*, at once applied to the Secretary of the Treasury for permission to engage in both the domestic and the foreign transit trade of the United States. That privilege embraces, first, the right to transport goods from points in our Pacific-Coast States to points in the States east of the Rocky Mountains and *vice versa*, in competition with the American lines, and, second, to receive foreign goods at Vancouver consigned to points in the United States east of the Rocky Mountains.

There were three potent reasons why this presumptuous request should have been refused.

First, as already explained, the transit trade had its origin and *raison d'être* on the eastern side of the continent in the conditions of ice and fogs, interjecting territory, and the fact that the territory of the United States lies between the richest portion of the Dominion and the Atlantic Ocean.

Second, the foreign transit trade on the eastern side of the continent brings Canadian commerce to American transportation lines and to American seaports; whereas on the western side of the continent the foreign transit trade diverts American commerce from American ships, American seaports, and American internal lines of transportation, and this with no possible corresponding advantage to be derived from Canadian commerce.

Third, the subvention of $215,000,000 to the Canadian Pacific Railway Company by the Dominion Government amounts, at 5 per cent interest, to an annual subsidy of over ten million dollars, available for the diversion of American commerce from American ships, seaports, and transportation lines. Besides, a British steamer line between Vancouver and China and Japan receives a subsidy of $300,000 a year from the British and Canadian Governments.

In the light of these facts, the Secretary of the Treasury would have been fully justified in refusing the privileges of the transit trade to the Canadian Pacific Railway Company. Unfortunately and, as it has proved, most unwisely, Secretary Manning of the Treasury Department decided to allow the Canadian Pacific Railway Company all the privileges sought by it. But he did not stop even there. He facilitated the audacious schemes of the Canadian Pacific Railway Company through the facile device of *a consular seal*, thus inaugurating a glaring and most unjust discrimination against American ships, seaports, and internal transportation lines. This unjust discrimination against American interests is explained thus:—

Our laws concerning the transportation of dutiable goods from seaports of the United States to interior points in the United States, require that a consular invoice of such goods shall, for example, be delivered to the Customs officer at San Francisco for examination; that entry of the goods shall be made at that port; that the goods shall be shipped under a transportation bond for the security of the duties; that the railroads over which the transportation takes place shall also be bonded, and that the cars in which they are carried shall be sealed. But, for the

especial accommodation of the Canadian Pacific Railway Company, foreign goods to be shipped east from Vancouver to points in the United States east of the Rocky Mountains are received by a Consular Agent of the State Department. He certifies to manifests of American goods at Vancouver, and forwards them over the Canadian Pacific Railway without examination or certifying to the invoices, and without bonding the goods. Nor is the railway itself bonded. The whole procedure is grossly irregular, if indeed it be not absolutely unwarranted by our laws.

Besides, an inspector of the Customs District of Puget Sound is stationed at Vancouver for the purpose of removing the seals from vessels arriving at that port from ports of the States of Washington, Oregon, and California with American goods destined to ports of the United States east of the Rocky Mountains. He also seals the cars of the Canadian Pacific Railway which carry such goods east. The same officer also attends to the receipt of American merchandise in cars at Vancouver from the east, and supervises the transfer of such goods to vessels bound to American ports. This, like the consular-sealing business, is prejudicial to the proper administration of the Customs service.

The first sign of effective resistance to this most injurious assault upon American interests is found in Section 22 of the Tariff Act of July 24, 1897. That Section, quoted in full at the beginning of this article, provides that a discriminating duty of 10 per centum ad valorem shall be levied upon two clearly designated classes of imports: First, goods imported at American seaports in vessels not of the United States; and second, goods which, being the production or manufacture of any foreign country not contiguous to the United States, shall come into the United States from such contiguous foreign country. There is a clause in the section which exempts from this rule goods imported in foreign vessels entitled by treaty to the privilege of entry at seaports of the United States on payment of the same duties as shall be payable on goods imported in American vessels. This exemption evidently applies only to foreign goods entered at seaports of the United States in foreign vessels.

The Attorney-General of the United States, in deciding the diamond import case before mentioned, declares that it matters not whether goods of the second class come into the United States in cars or in vessels. It is also evident that the terms of Section 22 make no distinction as to whether goods from non-contiguous foreign countries are brought to the ports of such contiguous countries in American vessels or in for-

eign vessels. Therefore, it appears to be beyond all question that the exempting clause which specifically applies to imports at American ports in foreign vessels does not apply to imports of the second class, *i. e.*, those which come into the United States from a contiguous foreign country.

It is earnestly to be hoped that Congress and the Administration will not only find it proper to sustain this view as to the meaning of Section 22, but that both will unite in the resolve that, in the future, goods, the product of this country, shall not be transported from one point in the United States to another point in the United States over the Canadian Pacific Railway, without the payment of duty. As already shown, the privileges of the domestic transit trade exist on the eastern side of the continent under natural conditions of reciprocal advantage, whereas no such conditions present themselves on the western side of the continent.

The commercial interests of the Pacific-Coast States, and especially of their seaports, are deeply involved in the present issue.

It is time to draw broad and evidently just and beneficial lines of discrimination in the management of our commercial relations with our grasping neighbor along our northern boundary line. If the adoption of such a line of policy needs any incentive beyond the object of protecting American interests, it is undoubtedly furnished in the aggressive acts of the Dominion Government. I refer particularly to the ill-treatment of American fishermen in the ports of the Dominion of Canada on the Atlantic seaboard, to the aggression upon our seal-fisheries in Behring Sea, to the discriminations against American vessels on the Lakes in the matter of entrance and clearance fees, to the refusal of the Canadian Government to allow American citizens to go to the relief of American vessels wrecked in Canadian waters, and to discriminating canal tolls, —matters which have involved great injustice to the people of this country along our northern frontier. Certain of these abuses have been abated upon the stern protest of the Government of the United States.

In their Third Annual Report the Interstate Commerce Commission makes the following statement in regard to unjust discriminations by the Canadian railroad companies:—

"They are practically under no restrictions imposed by their own statutes in respect to long and short haul traffic, but are at liberty to charge high rates on local business to indemnify for losses on through or international business. Their managers deny, with more or less emphasis, that their local traffic is subjected to higher rates, but when the liberty to make such charges and the necessity for it can exist,

the inducement, at least, is strong. The provisions of the Canadian statute on this subject, are as follows:

'SEC. 226. The company in fixing or regulating the tolls to be demanded and taken for the transportation of goods, shall, *except in respect to through traffic to or from the United States*, adopt and conform to any uniform classification of freight which the governor in council on the report of the minister from time to time prescribes.

SEC. 232. No company in fixing any toll or rate shall, under like conditions and circumstances, make any unjust or partial discrimination between different localities, but no discrimination between localities, *which, by reason of competition by water or railway, it is necessary to make to secure traffic*, shall be deemed to be unjust or partial.'

These enactments give all traffic carried in competition with our carriers unlimited freedom."

For many years the Dominion Government has imposed a discriminating duty of 20 per cent on silver coin of the United States.

In the Canadian Tariff Act, which became law on June 29, 1897, —about a month before the Dingley Act became law in this country, —the Dominion Government reënacted a discriminating duty of 10 per cent on tea and of two cents per pound and 10 per cent on coffee when imported into the Dominion of Canada from the United States. The same tariff allows tea and coffee to be imported from Great Britain free of duty. Other discriminations in favor of Great Britain appear in the recently enacted Canadian tariff.

The discriminating duty of 10 per cent on foreign imports through Canada, provided in the Dingley Act, is evidently a just and proper response to this discrimination by Canada against this country.

In the attempt to pass a just and intelligent judgment upon the actual relationships sustained by Canada to the United States, we must not lose sight of the fact that "Canada is a nation." This fact was boldly proclaimed by Sir Wilfrid Laurier at Queen Victoria's jubilee. In her speech proroguing Parliament on August 6 last, the Queen said:

"I have given notice to the King of the Belgians and the German Emperor to terminate the treaties of 1862 and 1865, whereby I am prevented from making with my colonies such fiscal arrangements within my empire as seem to me expedient."

The "arrangements" thus alluded to by the Queen are essentially treaties with independent British nations, styled by political euphemism British "colonies."

This utterance of the British Queen evidently demands a vigilant regard for the interests of the United States, in so far as concerns our Canadian relations in respect of commerce and transportation.

A careful review of the relationships existing between the United States and Canada, with special reference to the present status, appears to indicate that the provision of Section 22 of the Act of July 24, 1897, in regard to a discriminating duty of 10 per cent on all foreign goods not the product of a contiguous country which shall come into the United States from a contiguous country, is not only timely, but constitutes a just and proper act of protection, in harmony with the avowed principles of the political party now in power.

I now pass to the consideration of that feature of Section 22 which has direct reference to

The Protection of American Shipping.

This is found in the omitted words "or any Act of Congress" in connection with the section repealing former provisions of law.

The discriminating duty of 10 per cent on goods imported in foreign vessels has stood upon the statute-books of the United States for more than a hundred years. Its original purpose was the protection of the American merchant marine. The Second Act of the First Congress of the United States, approved July 4, 1789, provided that a discount of 10 per cent should be allowed on the duty payable on all goods imported in American vessels. This first declaration of commercial independence became law on the anniversary of the natal day of American independence by the signature of George Washington. The protective policy toward American shipping thus inaugurated remained unchanged until the Act of March 3, 1815, which provided that no discrimination in duties should be levied upon goods or merchandise *when imported in the ships of the nation of which such goods were the produce or manufacture*, provided that the nation to which such privilege was granted should make a similar regulation in favor of American ships laden with goods the produce or manufacture of the United States. Thus we invited the whole world to maritime reciprocity in the direct trade between nations. Just four months later, viz., on July 3, 1815, a treaty of commerce and navigation was concluded with Great Britain upon these precise terms.

But in 1828 the United States ventured upon the policy of absolute maritime reciprocity, whereby the ships of any nation coming from any port whatever laden with goods, the produce of any nation, were to be allowed to enter at ports of the United States on the same conditions with regard to duties and tonnage taxation as applied to American

vessels; this privilege being extended to any nation according similar privileges to American vessels in its own ports.

This provision of the Act of May 24, 1828, is known as Section 4228 of the Revised Statutes. It embodies the principle of free trade in the conduct of shipping, and it has met the fate of every free-trade experiment that has been attempted in this country.

One nation after another accepted the above-mentioned proposition. Pledged to her old exclusive maritime policy, England for twenty-three years stood aloof. Finally, by the Act of 12 and 13 Victoria, Chap. 29 (June 26, 1849),—a tardy follower of the policy of free shipping which the United States had inaugurated twenty-one years before,—England abolished all her time-honored navigation laws. But even then she withheld the courtesy of notifying our Government of the change in her laws which was to take effect January 1, 1850. In reply to inquiries as to what course would be pursued by the Government of the United States toward British vessels, the Secretary of the Treasury issued the following order:

"Circular Instructions to Collectors and other Officers of the Customs.

TREASURY DEPARTMENT, October 15, 1849.

In consequence of questions submitted by merchants and others, asking, in consideration of the recent alteration of the British navigation laws, on what footing the commercial relations between the United States and Great Britain will be placed on and after January 1 next, the day on which the recent Act of the British Parliament goes into operation, the Department deems it expedient at this time to issue the following general instructions for the information of the officers of the customs and others interested:

First—In consequence of the alterations of the British navigation laws above referred to, British vessels, from British or other foreign ports, will (under our existing laws) after January 1 next be allowed to enter in our ports with cargoes of the growth, manufacture, or production of any part of the world.

Second—Such vessels and their cargoes will be admitted, from and after the date before mentioned, on the same terms, as to duties, imposts, and charges, as vessels of the United States and their cargoes.

W. M. MEREDITH,
Secretary of the Treasury."

Under the privileges accorded by this circular—and not by the provisions of any treaty—the right to enter at ports of the United States from any port on the globe with goods, wares, or merchandise, the product of any nation whatever, upon the same terms as American vessels, has been enjoyed by British vessels since January 1, 1850. This defines the status of British vessels in our ports up to July 24, 1897, when the present tariff act became law.

And now, in order to set in a clear light the change which has recently been made in our maritime policy, let us recur to certain Acts which have direct reference to the 10-per-cent duty imposed on goods imported in foreign vessels. By an Act of Congress, approved June 30, 1864, the old discriminating duty of 10 per cent which still applied to the ships of nations that had not accepted our free-shipping policy inaugurated in 1828, was rëenacted. In the Revised Statutes it reads as follows:—

"Section 2502. A discriminating duty of 10 per centum ad valorem, in addition to the duties imposed by law, shall be levied, collected, and paid on all goods, wares, and merchandise which shall be imported in vessels not of the United States; but this discriminating duty shall not apply to goods, wares, and merchandise which shall be imported in vessels of the United States, entitled, by treaty *or any Act of Congress*, to be entered in the ports of the United States on payment of the same duties as shall then be paid on goods, wares, and merchandise imported in vessels of the United States."

The words "or any Act of Congress" exempted British vessels and the vessels of all other countries that had accepted the conditions of our maritime policy of 1828. This Section (2502) of the Revised Statutes was repeated in the McKinley Act of 1890, also in the Wilson Act of 1894, and it appeared unchanged in the Dingley Bill of 1897 as it passed the House of Representatives. But in the Senate an exceedingly important change was made. The Senate Committee on Finance struck out the entire section. In this form the bill was reported to the Senate. In the Senate, however, the section was restored. The words "or any Act of Congress" were stricken out, and the word "convention," synonymous with "treaty," was introduced. The debate upon this action in the Senate on July 3 was as follows: Mr. Allison moved that the section as reported by the House should be restored. This was agreed to. Mr. Allison then moved that the words "or any Act of Congress" be stricken out. This was also agreed to. By this omission the exemption from the discriminating duty of 10 per cent was withdrawn. The exempting clause now reads as follows:

"But this discriminating duty shall not apply to goods, wares, or merchandise which shall be imported in vessels not of the United States, entitled at the time of such importation by treaty or convention to be entered in the ports of the United States on payment of the same duties as shall then be payable on goods, wares or merchandise imported in vessels of the United States."

As the repealing section of the Acts of 1890, 1894, and 1897 repealed the corresponding section of the previous Act, and all Acts and

parts of Acts inconsistent with its provisions, it seems that Section 22 of the Act of July 24, 1897, withdraws from foreign vessels the privileges of the Act of May 24, 1828, and throws our relations of maritime reciprocity back upon treaty provisions. By this means, the benefits of that Act were withdrawn from the vessels of Great Britain, France, Spain, Portugal, Japan, and certain other countries.

With Sweden, Germany, Austria, Brazil, Belgium, Denmark, Italy, Greece, Chile, Argentina, Haiti, Hawaii, Holland, Russia, and Turkey, the Government of the United States has concluded treaties on the broad basis of maritime reciprocity provided in the act of May 24, 1828. The vessels of such countries will therefore not be affected by the provisions of Section 22 of our present Tariff Act.

It is sufficient, in this connection, to allude to the fact that the ships of Great Britain, our most formidable rival on the seas, are excluded from that benefit.

A few years after the late war, the public mind in this country was agitated by the fact that there had not been a complete restoration of American shipping, especially as all the internal industries of the country and its vast and innumerable sources of wealth exhibited, under the high protective war duties which even then prevailed, a degree of prosperity unparalleled in the history of the country. The population of the United States doubled between 1860 and 1890, and the wealth of the country increased fourfold.

And now, by way of comparison, turn to the brief and lamentable story of American shipping in competition with British shipping under our free-trade policy of 1828, accepted by Great Britain in 1849. The percentage of imports into the United States in American vessels fell from 63 per cent in 1860 to 33 per cent in 1870 and to 15.7 per cent in 1896. The actual value of imports and exports in American vessels fell from $352,969,401 in 1870 to $187,691,887 in 1896.

If the policy of protection, so grandly vindicated in the iron-and-steel industry, and in all our other industries exposed to foreign competition, had been applied to our shipping interests at the close of the late war, there is no reason to doubt but that we should have realized equally grand results upon the seas, instead of a continual and lamentable decadence under our free-trade policy of 1828, entered upon tentatively twenty-two years before England became a free-trade country.

As an officer of the Government, in the year 1871, I presented a report to the Secretary of the Treasury, in which I discussed at some length the subject of "Foreign Commerce and the Practical Workings

of Maritime Reciprocity." This report was transmitted to Congress by the Secretary of the Treasury, and is known as H. R. Ex. Doc. No. 76 —XLI. Congress, third session. I cannot better express my views as to the advisability of curtailing the privileges of the Act of May 24, 1828, than in the following extract from that report:

"The policy of maritime reciprocity has been fully and fairly tried. With all other nations than England we have held our own. The mutual advantages afforded by these relations of trade are apparent, and are not to be surrendered or abandoned without careful consideration.

In the totally changed condition of maritime affairs a question of great moment presents itself as to whether we cannot more easily meet any opposition of England arising from a modification or partial abrogation of our relations of maritime reciprocity than we can meet her competition under the unrestricted operations of the policy of free shipping. Shall we permit England, our only maritime rival, to grasp our commerce with every nation on the globe, or shall we secure a part of that commerce to our own ships? In other words, Shall we abridge the freedom of shipping which is simply the freedom of British ships to run American ships off the seas?"

The views of Governmental policy thus expressed in 1871 have been abundantly confirmed by the experiences of the last twenty-six years.

Since the year 1865, various expedients have been adopted for the restoration of the American merchant marine; but all have proved utterly futile. This is clearly indicated by the continual relative decline of American tonnage employed in our foreign commerce. Section 22 of the present Tariff Act, by throwing the vessels of Great Britain and certain other countries back upon their treaty rights, promises abundant relief.

It was fitting and highly expedient that this remedy should have been applied at the present time. The platform of the Republican Party of 1896 contained the following expression of faith and purpose:

"We favor restoring the American policy of discriminating duties for the upbuilding of our merchant marine and the protection of our shipping in the foreign carrying trade, so that American ships—the product of American labor employed in American shipyards, sailing under the Stars and Stripes, and manned, officered, and owned by Americans—may regain the carrying of our foreign commerce."

Section 22 is the specific performance of this patriotic purpose.

Let us indulge the hope that the good work thus begun will lead to some general policy protective of the interests of American shipping, and equitable toward all the commercial nations of the globe.

JOSEPH NIMMO, JR.

THE IMPENDING DEFICIENCY OF BREAD-STUFFS.

ONLY the populations of European lineage inhabiting Asiatic Russia, the United States, Canada, Australasia, Argentina, Brazil, Uruguay, Chile, South Africa, and Europe and its colonies can be termed "bread-eaters," which, numbering 371,000,000 in 1871, now aggregate 510,000,000; the increase equalling 37.5 per cent.

Owing to the cessation of war among the nations of European blood, greater freedom from destructive epidemics, and improved sanitary conditions, the "bread-eaters" are increasing at a much greater rate than ever, and annual additions are nearly one-half greater than twenty-five years ago. Aside from the increase due to an accelerating rate, there is a progressive enhancement following from the geometrical growth emphasized by Malthus. While annual additions numbered some 4,300,000 in the earlier years of the eighth decade, they now number nearly 6,400,000, and each year adds about 100,000 to the annual increment. Such an increase of the consuming element necessitates progressively greater annual additions to the areas employed in growing the bread-making grains; and current additions, instead of being nil, as they have been during the last thirteen years, should be nearly one-half greater than in the early 'seventies.

From 1870 to 1880, the "bread-eating" populations increased by additions equalling 1.16 per cent per annum; while from 1880 to 1890 the annual rate of increase was 1.27 per cent. Censuses recently taken indicate a higher rate of increase since 1890.

Of the greater populations, those of the United States, Russia, Hungary, Germany, Great Britain and Ireland, Austria, Italy, and France increase at rates diminishing in the order named.

With one notable exception, the economic condition of the "bread-eating" populations has improved since 1870. In Hungary and Scandinavia the improvement has been phenomenal. The changes have been reflected in many ways, but in none more strikingly than in improvements in national dietaries. With the exception of Russia, and possibly Turkey, all Europe has shared, in greater or less degree, in the improvement in this direction. In the United Kingdom, for instance,

the dietary of the industrial classes has long been a comparatively high one; yet unit consumption of wheat has there been 4 per cent greater in the six years ending with 1895 than in the preceding six; while unit consumption of meats, fruits, and dairy products has increased in even greater measure. At the same time, unit consumption of potatoes and other low or cheap forms of food has diminished in a relative degree.

In France, annual unit consumption of wheat rose from 7.2 bushels per annum in the eighth decade, to 8.01 bushels for the five years ending with 1895; while unit consumption of rye fell from 1.54 to 1.45 bushels and that of maslin declined from 0.45 to 0.25 of a bushel. At the same time the unit supply of buckwheat was reduced from 0.7 of a bushel to 0.5 of a bushel; unit consumption of potatoes declining in much the same measure.

Want of space forbids the particularization of changes in all the countries of Europe, and it must suffice to direct attention to some of the more pronounced in the unit's ration of wheat; remarking that additions to the unit's wheat ration have been invariably accompanied by equivalent changes in the unit's consumption of cheaper forms of food.

Since 1871, Europe's population has increased by additions aggregating 91,000,000, or 30 per cent, while European rye-fields have shrunk 4,700,000 acres, or 4.5 per cent; those under spelt and maslin 1,300,000 acres, or 23 per cent, and those under buckwheat 6,500,000 acres, or 40 per cent. On the other hand, acres under potatoes show an increase of 5,800,000 acres, or 27 per cent, as against population's increase of 30 per cent. There has been a marked decrease of European unit consumption of potatoes, except in Russia, where there has been a great increase owing to the growing poverty of the mass of the population.

The most notable change of the last thirty years in the economic condition of a great population is probably that which has obtained in Hungary since it became autonomous. So great has been the improvement—much greater than in Austria—that unit consumption of wheat in Austria-Hungary has risen from 2.2 bushels per annum in the eighth decade to 4.1 bushels for the five years ending with 1895, or an increase of 86 per cent. Separately, Hungary shows an increase of 110 per cent. This explains a great decline in Austro-Hungarian exports of bread-stuffs, notwithstanding a great increase of wheat production.

All Scandinavia has been exceptionally prosperous, and shows great advances in the quality of food consumed; annual unit consumption of wheat having increased about 100 per cent within twenty-five years.

In Belgium, where unit consumption of wheat has long been high,

the increase, since the close of the eighth decade, has been 57 per cent; while unit consumption of the other bread-making grains has diminished in like measure. In Holland and Germany, similar changes have occurred, though less pronounced.

As regards Italy, available data show little change in unit consumption of the various primary food-staples, probably because economic conditions, as affecting the mass of the population, have improved but little in the last twenty-five years.

That there has been a great change in the proportions of the bread-making grains consumed in Europe, in recent decades, is obvious from the fact that while population has increased 30 per cent since 1870, the rye area of Europe has shrunk 4.5 per cent, with but trifling imports of rye from other countries. Relatively to population, Europe's rye area of 1871 was 42 per cent greater than that of 1896.

More than 85 per cent of Russia's great population finds employment upon the land; and since the emancipation of the serfs the lands of the village communes have been repeatedly subdivided among a rapidly increasing number of families. Subdivision has been carried so far, and with such undesirable results, that the Czar has recently forbidden it except by administrative permission, as holdings only large enough to support one family thirty years ago have, by partitions, become wholly inadequate; thus forcing the use of coarser forms of food, intensifying conditions of unthrift, and lowering the standard of living. Such changes in the economic condition of the mass of the population are reflected in pronounced dietary changes, affecting nearly a hundred million people; unit consumption of wheat having declined 14 per cent, and that of rye 13.5 per cent, since the close of the eighth decade. On the other hand, unit consumption of maize and potatoes has increased; the increase in the case of the latter being 13.5 per cent.

Governmental recognition of the lowering of the standard of living in Russia is evident in the official statement that prior to 1880 the consumption of bread had fallen 17 per cent below minimum requirements. Data relating to population, and production and exportation of the bread-making grains since 1880, indicate a further reduction of nearly 14 per cent in the unit bread-ration, which has now fallen 30 per cent below the minimum requisite for health and comfort.

In 1893, Prof. Karysheff cited, in the "Russkoe Bogatstvo," official data showing that the seed grain sown per unit had fallen 14 per cent since the middle of the seventh decade, notwithstanding an enormous

increase of exports; while the area under grains had ceased to expand. It was also shown that, to satisfy increasing demands on the part of the tax-collectors, the peasantry were being forced to part with progressively greater proportions of the grain grown.

Had not unit consumption of wheat declined in Russia since 1880, Russian exports of that grain during the last sixteen years would have been 250,000,000 bushels less; and had unit consumption of rye equalled that of the eighth decade, not only would the 750,000,000 bushels of rye exported since 1880 have been consumed at home, but domestic requirements would have absorbed 350,000,000 additional bushels of the wheat exported. That is to say, a reduction, since 1880, of 13.5 per cent in Russian unit consumption of bread has served to add 1,360,000,000 bushels to the importing countries' supply of the bread-making grains, has prevented scarcity in Central and Western Europe, and has been one of the most potent factors in causing world-wide agricultural depression, as well as that seeming abundance which has been the despair of the cultivator, inducing the optimist to believe that the world had entered upon an unending era of plethoric supplies of cheap food.

Only in Russia, and possibly Turkey, has unit consumption of wheat declined. In Roumania it has increased and that of maize diminished. And while official data are unsatisfactory in relation to soil production in Bulgaria, Servia, and Bosnia-Herzegovina, there is abundant evidence that since the Turk ceased to rule, economic conditions have improved in those countries; and this should have brought, and doubtless has brought, an improvement in the national dietaries.

Spanish and Portuguese data are as unsatisfactory as those relating to the Balkan states; but everything in the shape of evidence points to an increase of unit consumption of wheat and meats, and proportionate changes in that of the cheaper forms of food. Imports of wheat have certainly increased much more rapidly than population; while there has been little change in the relative areas employed in growing that grain.

Although the Swiss bread-grain areas could not have decreased much, being so small, the imports of wheat have increased much more rapidly than population; indicating an increase of unit consumption in consonance with the growing prosperity of Switzerland's population.

In relation to the consumption of the bread-making grains in Argentina, Brazil, Uruguay, and Chile, few satisfactory data are available; but the recent European emigration has doubtless increased the proportion of wheat and diminished that of maize in the dietaries

of Argentina and Uruguay; while Chilean wheat consumption has long been, relatively to population, but little below that of Belgium. In Brazil, emancipation and higher prices for coffee have stimulated the use of wheat and other high forms of food.

Australasian consumption of wheat per unit is the greatest known; and unit consumption of wheat is only less than that of France and Belgium, having steadily increased during the last twenty-five years.

While the belief is general that, since employment became less continuous for the mass of the industrial population, unit consumption of wheat in the United States has declined, yet the opposite is probably true, as bread has been the cheapest food obtainable. Since the close of the Civil War, there has certainly been a material increase of unit consumption south of the Potomac and Ohio; and there is no evidence in support of lessened consumption in the North. If we accept commercial additions to the official estimates of the last six wheat crops—as we doubtless should in part—unit consumption has certainly increased in recent years.

In relation to but a small part of the world's grain-bearing areas are reliable data available prior to 1870; and only recently has any attempt been made to assemble such as deal with production and consumption, since 1870, by the "bread-eating" world as a whole. Only the present writer seems to have made any attempt to measure the synchronous increase of population and the acres bearing the grains consumed by such populations. Investigations, pursued concurrently with the assembling of data relating to population, acreage, and production, show that unit consumption of wheat by the "bread-eating" world, as a whole, has increased steadily since 1870; while unit consumption of rye, spelt, maslin, and buckwheat (grains grown as exclusively for bread as is wheat) has as steadily declined, and in much the same measure as unit consumption of wheat increased.

Using official data for more than 95 per cent of the areas occupied by the "bread-eaters," and commercial estimates for the smaller fraction, it is found that the product of the areas so occupied—and which for convenience may be termed the "contributory areas"—plus imports from Asia and North Africa, has been such, in each of three periods indicated, as to afford annual average unit quotas of the "bread-making" grains as shown in table on page 178.

While unit consumption of wheat is shown to have steadily increased, that of other bread-making grains has as steadily declined, although that of rye shrank but little in the later period, owing to the

fact that seven out of the nine crops gave acre-yields greatly above the average; such yields resulting from a succession of exceptionally favorable seasons over all the greater producing districts.

ANNUAL UNIT SUPPLY, IN BUSHELS.

Periods.	Wheat.	Rye.	Spelt and Maslin.	Buckwheat.	Totals.
1871–78	3.552	2.683	0.181	0.376	6.792
1879–86	3.777	2.353	0.176	0.316	6.622
1887–95	3.899	2.350	0.160	0.227	6.630
Averages.	3.743	2.462	0.172	0.306	6.681

So marked has been the change in the acreage under the bread-making grains, relatively to the consuming population, *that the area employed in growing wheat, rye, spelt, maslin, and buckwheat is now two million acres less than fifteen years ago, and but twenty million acres greater than in 1871.* Had the rate of area increase equalled the 37.5 per cent at which the "bread-eaters" increased, additions to the bread-grain area, since 1871, would have aggregated much more than 80,000,000 acres, instead of the meagre 20,000,000. This startling disparity in the rates of increase indicates either an excessive acreage in 1871, or one now largely defective. That the acreage was not excessive in the early part of the eighth decade is evident from prices then obtaining, and the absence of unmanageable surpluses of grain.

	1871.	1882.	1897.	Increase, %.
"Bread-eating" Population	371,000,000	422,000,000	510,000,000	37.5

Grain.	1871. Acres.	1882. Acres.	1896. Acres.	Increase or Decrease in 25 years, %.
Wheat	125,800,000	150,000,000	158,000,000	25.6 +
Rye	111,000,000	110,500,000	106,500,000	4.1 —
Spelt and Maslin.	5,700,000	4,900,000	4,400,000	22.8 —
Buckwheat.....	16,200,000	14,900,000	9,500,000	40.8 —
Total.....	258,700,000	280,300,000	278,400,000	7.6 +

Movements of the "bread-eating" population, and acreages under the bread-making grains in the regions inhabited by the "bread-eaters," and which contribute their entire product, exclusive of quantities required for seed, to the food supply of such populations, have been, since 1871, as shown in the preceding table.

This exhibit is significant in many respects. The wheat area of the countries inhabited by the "bread-eaters"—who procure less than 1 per cent of their supplies from Asia and North Africa—is shown to have increased 24,200,000 acres, or 11.2 per cent, between 1871 and 1882, and but 8,000,000 acres, or 5.3 per cent, between 1882 and 1896; the increase in twenty-five years equalling 25.6 per cent, as against a population increase of 37.5 per cent.

Outside of the regions inhabited by the "bread-eaters" there are—in India, Persia, Asiatic Turkey, and North Africa—some 40,000,000 acres employed in growing wheat; but exports from all such regions aggregate, in recent years, less than 20,000,000 bushels per annum, and decline gradually as the populations of such countries increase; hence, for the bread required, the populations of European lineage must rely, for more than 99 per cent, upon the "contributory areas" they occupy.

The full significance of the wide difference in the rates at which acres under the bread-making grains and the units consuming such grains have increased since 1871 is shown in the following table:

Grain.	Fraction of Acre per Unit.			Loss in unit quota, part of acre.	Ratio less than in 1871, %.
	1871.	1882.	1896.		
Wheat	0.339	0.356 +	0.310 —	0.029 —	8.6 —
Rye	0.297	0.262 —	0.209 —	0.088 —	29.3 —
Spelt and Maslin	0.015	0.012 —	0.009 —	0.006 —	40.0 —
Buckwheat	0.044	0.035 —	0.019 —	0.025 —	56.8 —
Totals	0.695	0.665 —	0.547 —	0.148 —	21.3 —

It appears that while the average *acreage* quota, under the bread-making grains, of the "*bread-eating*" unit was 0.695 of an acre twenty-five years ago, *it has since been reduced by more than one-fifth.* This portentous fact indicates that statesmen must soon face more serious problems than those of the tariff and the currency.

Although the United States contributed 17,000,000 of the 24,000,000 acres added to the wheat-fields of the world between 1871 and 1882,

yet the wheat area of the United States in 1897 is quite 3,000,000 acres less than 15 years earlier; and of additions to the world's wheat area since 1882, aggregating 8,000,000 acres, we have contributed not one acre. It is noteworthy that when the United States ceased adding to its wheat-fields, those of the world ceased to keep pace with the increase of the "bread-eating" population, and are now greatly deficient. *So great is the deficit that, with acre-yields no better than the average of 12.7 bushels of the last twenty-six harvests from "contributory areas," the output would be 275,000,000 bushels—or the net product from some 27,000,000 acres—less than present needs.*

That is, population and requirements have increased so much more rapidly than wheat-bearing acres that, but for an unprecedented succession of seasons, over world-wide areas, conducive of exceptionally high "*over-average*" acre-yields, present conditions, respecting supplies and prices, would have obtained years since. But for the disparity which has existed between the rates at which the consuming element and bread-bearing acres have increased, the world's area employed in growing wheat and rye would be at least 50,000,000 acres, or 19 per cent, greater than now. In other words, *there exists an acreage deficit of the two principal bread-making grains of more than fifty million acres*, while there is even a greater relative deficit in the areas employed in growing such bread-making grains as spelt, maslin, and buckwheat, which show an absolute shrinkage of 8,000,000 acres, or 36.5 per cent, since 1871; thus imposing an additional duty upon wheat equivalent to the net product from 8,000,000 acres of such grains.

Unless, as seems desirable, the United States shall convert a portion of its over-abundant maize lands into wheat-fields, any material increase of the world's wheat area is probable only in South America, although the belief is very general that the trans-Siberian railway is about to open a vast region adapted to the production of wheat and rye. It would be difficult to conceive a more baseless belief, as at most not more than 50,000,000 acres of all Siberia can be regarded as cultivable. Much more than one-half the cultivable land of Siberia has already been occupied by communes of Russian peasants and employed in the production of the staples required by a population of about 6,000,000. When the Russian Minister of Ways and Communications—Prince Hilkoff—was in Kansas City last October he stated, in reply to a direct inquiry respecting the future of cereal production in Siberia, that, "*Siberia never had produced, and never would produce wheat and rye enough to feed the Siberian population.*"

Argentina and Uruguay alone promise material additions to the world's wheat-bearing area; and, together, they have an area potentially wheat-bearing about equal to three or four of our central States. For years to come development must be slow, as the essential of population is lacking; a dearth of laborers being yearly experienced at seed-time, as well as during harvest.

Since 1884, the wheat area of the United States has diminished about as much as that of South America has increased. The acres taken from our wheat-fields have necessarily been employed in growing the forage, fruits, vegetables, and dairy products required by a rapidly increasing population; increasing requirements for hay alone absorbing as many acres as have been added to the cultivated area since 1890.

If the acreage deficit has increasingly existed—as it has—since the middle of the ninth decade, and is still constantly growing, only anomalous conditions affecting production could have so masked it that scarcity and extremely high prices should not have long since obtained, instead of that over-abundance which has discouraged the grower, and given birth to political parties in Germany and the United States. Such anomalous conditions have existed, and resulted from that operation of natural forces which brings successions of seasons of dearth at one time, and successions of seasons of exceptionally great acre-yields, over world-wide areas, at others.

A notable succession of bad seasons, affecting all Europe, was that extending from 1692 to 1699, and which is embalmed in history as "the seven barren years at the end of the seventeenth century."

From 1771 to 1793, Europe was favored with a succession of seasons when the greater part of the harvests were above the average, and "plenty reigned." Dearth, however, was common in 1795 and 1796; and 1799 was the first of the dreary succession of years of deficient production extending till 1821. Within this period, of the same duration as the preceding plenteous one, more than three-fourths the harvests were materially defective, those of 1800, 1801, 1809, 1810, 1811, and 1816 being extraordinarily so. In 1798, wheat was selling in London for 66 cents a bushel; rose to 94 cents in 1799; advanced to $4.90 in 1800; and sold as high as $5.40 in 1801; the average for the 21 years having been $2.10 per bushel.

During this period crops were also defective in America; and while records of American prices are scanty, we know that rye sold for an average of $1.38 in Massachusetts during the first 20 years of this century, as compared with $1.02 for the preceding 20 years and 89 cents

for the ten years ending with 1830. In December, 1795, Lord Sheffield, in treating of the then existing scarcity, stated in Parliament that in the preceding August wheat had sold for $3 a bushel at Philadelphia.

From 1821 till 1882, world-seasons were so equable, and acres so well proportioned to increasing world-requirements, that prices were comparatively constant; never, in England, falling below $1.20 per bushel, and but rarely below $1.40, while but twice, for periods of three and two years respectively, rising to or above $2 per bushel. In 1839, 1840, and 1841, the rise resulted from scanty harvests in both Europe and America. In the other case the advance followed from the Crimean war, when production equalled requirements.

Owing to the addition of more than 17,000,000 acres to the wheat-fields of the United States between 1870 and 1880, the very scant European harvests of 1879 and 1880 caused only moderate advances in prices for the bread-making grains, although serving, by an exhaustion of reserves, to prevent the rapid fall that would have followed had those harvests been as abundant as that of 1882. From and after 1882, however, prices fell rapidly until the year of the Russian famine. The harvest of "contributory areas" in 1882 exceeded the average of the preceding three by as much as 320,000,000 bushels, or 18 per cent, and, with imports of 40,000,000 bushels from Asia and North Africa, exceeded requirements by 160,000,000 bushels. Had the harvest of 1882 not been followed by one still larger in 1884, and that by others of equal value in 1887 and 1888, the decline in price would have been arrested, as consumption was then, as now, increasing more rapidly than grain-bearing acres, while *not an acre had been added to the world's wheat and rye area since 1884.* The fact is, that the enormous world-crop of 1882 was but the beginning of an almost continuous succession of great world-crops of wheat, so much above the average in acre-yield that the *over-average* product of the fifteen harvests ending with 1896 was more than 1,200,000,000 bushels, although four of the fifteen gave acre-yields somewhat below the average. This added to our store of supplies 1,200,000,000 bushels of wheat, and an immense synchronous *over-average* production of rye, as well as a great augmentation of exportable Russian surpluses of wheat and rye, by reason of the decline of 13.5 per cent in unit consumption of bread in Russia. These conditions served completely to obscure the existing acreage deficit; to depress prices to an unremunerative level, and to store up great reserves that enabled the "bread-eaters" of 1895 to secure abundant supplies,

notwithstanding the fact that the wheat harvest of 1895 in "contributory areas," plus imports from Asia and Africa, was 75,000,000 bushels below requirements. It served also to furnish all needed supplies in the 1896–7 harvest year, despite the fact that the product from that year's harvest in "contributory areas," plus imports from Asia and Africa, was 138,000,000 bushels below the year's requirements.

Reserves having been reduced to the lowest point consistent with safety, conditions relating to requirements and supplies are, with the defective harvest of 1897, radically different from those which have prevailed in every year since those earlier ones of the century when the price rose to four and five dollars a bushel, as it is now, again, impossible to supplement a wholly insufficient harvest by any considerable remainders from previous ones. From 1882 till 1889, and from 1890 till 1896, great reserves were available to make good small deficits from the four under-average harvests garnered since 1882.

The following comparative statement of requirements and the extent and sources of available supplies, in each of three harvest years, will aid to a clear conception of the present situation, it being borne in mind that official data are used for 95 per cent, and commercial estimates for 5 per cent, of the product of 1895 and 1896. The "wheat grown" in 1897 is but an estimate based on official indications at harvest time in the principal countries, although such countries are invariably credited with larger outputs than official indications warrant. For instance, the United States is credited with a crop of 525,000,000 bushels, although official indications point to one of only 460,000,000 bushels. Moreover, Asia and Africa are credited with the ability to export 10,000,000 bushels; but such exports, if made, must in large part result from crops not yet sown.

SUPPLIES AND REQUIREMENTS.

	1895–6. Bushels.	1896–7. Bushels.	1897–8. Bushels.
Wheat grown	2,157,000,000	2,130,000,000	1,900,000,000
Imports from Asia and North Africa	23,000,000	15,000,000	10,000,000
Old wheat consumed	75,000,000	138,000,000	.....
Total supplies	2,255,000,000	2,283,000,000	1,910,000,000
Seed and food required	2,255,000,000	2,283,000,000	2,310,000,000
Indicated deficit of the 1897 harvest			400,000,000

As the food requirements of the 510,000,000 "bread-eaters" of 1897 aggregate 1,990,000,000 bushels, and as there will, apparently, remain but 1,590,000,000 bushels after setting aside 320,000,000 bushels for seed, *it follows that but three-fourths of the required bread can be provided*, unless larger drafts than now seem possible can be made upon reserves reduced to the lowest point consistent with the safety of the exporting nations.

Relatively, as great a deficit exists in the 1897 rye harvest; and Europe's potato crop is apparently defective in the nutritive equivalent of 150,000,000 bushels of wheat; while spelt, maslin, and buckwheat are deficient by more than 30,000,000 bushels.

That scarcity and high prices have not prevailed in recent years is due to the harvesting, since 1889, of seven world-crops of wheat and six of rye, giving outputs so much above the average as to result, prior to 1895, in great accumulations that served to obscure the fact that the harvests of 1895 and 1896 were each much below current requirements. As reserves will wholly disappear this year, requirements must hereafter be met from current harvests, accumulation being impossible. This is obvious from the fact that an output equalling that of 1894 (the greatest crop ever grown, both in acre-yield and in the aggregate) would be less than present needs.

The situation will be brought into clear relief by stating that in the last six years Europe has grown and imported 9,930,000,000 bushels of wheat, or an annual average of 1,655,000,000, of which some 210,000,000 yearly have been used as seed, the remaining 1,445,000,000 serving to feed a population averaging 380,000,000; the annual average unit supply having been 3.8 bushels. This year there are 392,000,000 European units to be fed, requiring 1,490,000,000 bushels of wheat.

Europe's harvest will provide less than 1,200,000,000 bushels; leaving more than 500,000,000 to be derived from external sources. After furnishing 35,000,000 bushels to tropical and island customers, it is possible that North America can spare 140,000,000 bushels for Europe. Should the crops sown, and to be sown, in South America, India, and Australasia prove to be maximum ones, then it is only *possible* that Europe may, before August, 1898, secure 90,000,000 bushels from such sources. Such an improbable outcome, however, would, even then leave, unprovided for, a demand for nearly or quite 300,000,000 bushels of wheat, 250,000,000 bushels of rye, 30,000,000 bushels of spelt, maslin, and buckwheat, and of potatoes the equivalent, in nutritive value, of 150,000,000 bushels of wheat. In other words, after Europe

shall have exhausted all possible supplies from the harvests of 1897, and such crops as may be harvested prior to July, 1898, there will apparently be a deficit of the equivalent of 700,000,000 bushels of the bread-making grains, with no resource except meagre remainders from former harvests, and with no substitution possible, unless Europeans can be induced to eat corn-bread.

When we reflect that although the world's output of wheat in 1897 is several hundred million bushels less than requirements, acre-yields have been but little below an average; that an average yield from the acres now employed would be 275,000,000 bushels less than present needs; that the greatest crop ever grown would not equal present requirements; that requirements for wheat and rye progressively increase, year after year, by more than 40,000,000 bushels; that not an acre has been added to the aggregate of the world's bread-bearing area since 1884; that while yearly increasing needs in the 'seventies implied average yearly additions of less than 2,800,000 acres, they now imply additions of more than 4,000,000 acres of wheat and rye per annum; that not in a single year since 1880 have additions to the acreage equalled the year's increased needs; that but for an "over-average" production of wheat and rye aggregating more than 2,300,000,000 bushels since 1881, and extraordinary exports from Russia of more than 1,300,000,000 bushels,—because of declining unit consumption in Russia,—the supplies of the importing nations would have aggregated some 3,600,000,000 bushels less in the last sixteen years; that the world can expect no better than average acre-yields, no matter what its necessities; that not even when the great valleys of North America were being developed did annual additions of bread-bearing acres exceed two-thirds present increases of annual requirements, and that an acreage deficit exists equal to the supply of as many "bread-eaters" as have been added to the world's population in the last twelve years, we can begin to understand the present situation. We can also realize the nature of the task before the world in an effort to eliminate an enormous area deficit,—which means that, simply to meet each year's increasing requirements, it must annually add one-half more acres than ever before,—and what is likely to be the situation, respecting supply and demand, if the world should, as is by no means improbable, again harvest in succession, three such crops as those of 1879, 1880, and 1881,—crops which gave acre-yields materially below that which now results in a deficit of one-fifth, or, possibly, one-fourth, the bread required.

C. Wood Davis.

STATISTICS *VERSUS* SOCIALISM.

THE first settlements in this country were made by people seeking a larger degree of freedom than that which they had enjoyed in Europe. They sought not merely religious and political freedom, but social and industrial freedom as well. They desired a field for enterprise and personal initiative. Europe had progressed along this line slowly from century to century for three or four hundred years; but even as late as 1600 social freedom had not made any great progress. It is true there had been a movement in all Northern Europe toward the right of private judgment in matters of religion. This was Protestantism; and it was followed by a revolt against the divine right of kings, especially in England. Individualism, for all this, did not gain very much at home in Europe, but acted chiefly to drive peoples out from Europe on adventures, and to colonize America. Thus North America came to be settled by people who desired above all things to be free from dictation on the part of the social whole. Each individual wished to reap the fruits of his own deeds, and to be called upon to make as small a contribution as possible to his colonial government; and, as to contribution to the home government in Europe,—he desired to be rid of that altogether. This sturdy discipline of individuality went on for a hundred and fifty years, more or less; and then came the Declaration of Independence on the part of the North American colonies. The United States, as a separate nation, has now completed a hundred years more of individualistic growth. This movement culminated in the Civil War, in which the majority of the nation compelled the minority to recognize the individual rights of an inferior race, and emancipate it from the domestic slavery in which it had been nurtured for two hundred years. The modern spirit could not endure slavery, because that institution takes no recognition of the deeds of the individual. It gives him subsistence, food, clothing, and shelter, whether he earn much or little. It recognizes the right to life, but not to liberty. Individualism values liberty more than life.

The chief occupation of civilization in the last fifty years of its career has been to emancipate each person from the control of the

family, the civil community, the state, and the church, wherever that control has trammelled the exercise of liberty.

This protest has not been limited to America. It has been active in Great Britain and France, and, to a less degree, in the other countries of the Continent of Europe. The Age of Revolution, as it is sometimes called, has this significance. It has attacked all manner of restraints and impediments to liberty, and demanded that every man shall have the right to the fruit of his deeds, shall have a chance of a career, and be allowed to shape for himself the niche he is to fill. The slave shall be declared a free man, be permitted to choose his vocation, make contracts with his employers, or work for himself if he prefer; or refrain from work altogether, provided he can render an equivalent for what he demands and receives from his fellow-men.

Up to the present, the attainment of liberty has been the ideal of our civilization. We look forward to greater possibilities for each person in the way of conquests over nature. We demand greater freedom in choosing one's habitat, a greater exercise of arbitrary choice in selecting one's vocation. Increasing numbers of young men begin with a life of adventure: they seek their fortunes on distant borderlands. Indeed this is so characteristic that our civilization has been called a borderland civilization. A large extent of territory in North and South America, in Africa and Australia, and the isles of the sea, is visited by adventurers of European descent. They are intent on subduing these borderlands and colonizing them,—building civilization in place of the savagery and barbarism that they find there.

But a counter-movement is already in progress; while our individualism is at a higher point than it has ever before reached. Many of those persons who advocated the emancipation of the Southern slave, and who contended with the ballot and the sword for his freedom to choose his vocation and enter into competition with the white laborer, now abandon the ideal of competition and adopt that of socialism. They would argue that it is better, not only for the colored man, but for the white man, to give up individual adventure, and to accept such an organization of society as would determine the career of each member of it and apportion to him his share of the productions of the industry of the whole. A small percentage of the citizens of the United States hold this theory of socialism in the full application of its principle; but very many have adopted some parts of the scheme, perhaps without seeing the drift of the reform which they would introduce into the community.

For purposes of clear thinking in this matter it is necessary to keep in mind that the doctrine of individualism would limit the function of political government to removing obstacles that are in the way of free action on the part of the individual and of the return upon him of his own deed. Government must help each person to help himself. Any help given by it which has the effect of weakening his power of self-help and undermining his individuality is contrary to this principle. But socialism, properly so called, seeks the help of the individual by the social whole in order that he shall share equally in the products of all without reference to his producing power. He shall have food, clothing, shelter, and culture,—yes, although he is a person most inefficient in deeds, he shall share equally with those who can and do produce most. The goods of this world shall be distributed not to the producers of them, but *pro rata* to all living human beings. Life, and not work, shall be the basis of distribution.

The appearance of this socialistic standard in our political history has been preceded by the adoption of pessimistic views with regard to the trend of the existing system of competitive industry. In almost all cases the reformer confines his view to the weaklings of society, the paupers, criminals, and individuals who are least able to compete with their fellow-men for a subsistence. In the presence of the slums of the East End of London and of New York he pronounces the competitive system a failure. He glances from these people to the class of extremely wealthy persons which has grown up and is increasing in all countries where productive industry has adopted the use of machinery. In the language of Henry George, he "sees the persistence of poverty amid advancing wealth," and pronounces judicially upon the failure of the competitive system by affirming that "under it, as a system, the rich are growing richer and fewer and the poor are growing poorer and more numerous."

In his work on Capital, Karl Marx, the philosophic leader of socialism, gives utterance to the following statement as a law of political economy in modern competitive industry, in which he thinks that the centralization of capital has proceeded so far as to turn laborers into slaves by absorbing all the products of their labor except the bare means of subsistence:—"Along with the constantly diminishing number of great capitalists who monopolize the instruments of production, there is a constantly increasing mass of misery, oppression, bondage, deformity, and extortion." This I take to be the origin of that famous jeremiad of Henry George which I have quoted above. Or, as Dean

Farrar gave it in a recent article in the "North American Review": "While the rich are growing richer, the great masses of the poor are growing relatively poorer." In Henry George's "Progress and Poverty," this supposed law of society based on competition is quoted with tragic emphasis.

Again, it is used by Bellamy in his "Looking Backward." He says:—

> "The nation became the sole employer, and all the citizens, by virtue of their citizenship, became employees, to be distributed according to the needs of industry [not self-distribution or free choice of vocation]. . . . The nation guarantees the nurture, education, and comfortable maintenance of every citizen from the cradle to the grave." (Pp. 85, 123.)

Look for a moment at the relation of the remedy to the disease. The disease is inequality of wealth in the community, caused primarily by thrifty habits in a portion of the community opposed to unthrifty habits in the remaining portion, and the effect extended by inheritance. There are industry, skill, frugality, and temperance opposed to idleness, lack of skill, wastefulness, intemperance. The old remedy for this was to correct by some means the unthrift, and to teach the weaklings of society to become industrious, economical, and skilful. The new remedy proposes to abolish altogether the idea of thrift as a trait of character by removing all occasion for its exercise. There shall be no individual accumulation of property. It shall be produced by the state and distributed by the state not on the basis of productive power, but on the basis of abstract citizenship,—on the basis of existence rather than of activity, of being rather than of doing.

This of course is not reform, but revolution. A physician proposes to cure the body; but the socialistic remedy proposes to get rid of the body altogether. Free proprietorship and competition have incidental evils; therefore abolish private property, root and branch. To the question, "What shall we do for the submerged tenth?" the reply is: "Submerge the other nine-tenths."

However objectionable this may seem to the enterprising and energetic youth, yet if the supposed law of Marx be true, then Henry George and Edward Bellamy are right in looking for another and better system of industry than the competitive system.

It is important, then, to have this question of the trend of modern productive industry settled by an accurate canvass of the statistics in this country and in all countries of the world where any system of industry prevails.

If we must incline to the side of the Socialists and believe, with them, that the present structure of our industrial civilization is so organized that the rich become richer and fewer, and the poor poorer and more numerous, and that the middle class is sinking to the level of the poor, we must all admit that there is need of a revolution, and that a mere reform is not sufficient. The system cannot be reformed: it must be radically changed.

Statistical data are therefore needed, in the first place, to show the production of wealth and its distribution in different epochs—at some recent date, say 1890 or later, and some earlier date contemporary with the beginning of the modern era of steam transportation, say 1830 or 1840. Also at some still older date contemporary with the beginning of the era of machinery: in Great Britain 1780 or 1800; in this country 1820.

In the countries where a carefully graded income tax has existed, as in Great Britain, France, Italy, there ought to be found the data for close estimates, if the exact statistics needed are not accessible in official records. Mr. Dudley Baxter, in 1867, estimated the national income or total production of the United Kingdom, and classified the people according to wealth and poverty. About the same time Leone Levi undertook similar researches. Since then, Robert Giffen, head of the statistical department of the British Board of Trade, and president of the Statistical Society of Great Britain, has written numerous papers, in his careful and judicial spirit, going over the data which bear upon this important question of the distribution of wealth, not only in his nation, but in other nations which publish income returns. His two series of essays and his "The Growth of Capital" are the best works we have on the subject. Mulhall's "Dictionary of Statistics" brings together a vast amount of statistical data under the heads of Income, Wealth, Finance, Occupation, Prices, Agriculture, Manufactures, Commerce, Taxes, and similar topics. The items that he gives are of more or less value according to the authorities from which they are compiled, or in proportion to the good luck of Mr. Mulhall in guessing the results from such data as he could find. The latest edition of his work (1892) is of much greater value than the former editions, because its author takes more pains to give his authorities. But his newest work, "The Industries and Wealth of Nations" (1896), is better still, because he explains his rules of making estimates. One great merit must be conceded to Mr. Mulhall, namely, he has seen from the beginning what statistical items are useful in settling our new social and political problems. He

has seen, too, that this class of statistics must be studied after the method of Engel, who undertook to fix the annual budget of family expenses in the different classes of society,—so much for food, for clothing, for rent and fuel,—how much saved, etc. Such average ratios as exist between the different items of production and consumption must be discovered. Then it will be easy to arrive at approximate accuracy by indirect methods.

So long as the Census does not give us the needed data, nor our experts make for us careful estimates, there will be wild guesses, based on isolated facts of a sensational character,—facts that are exceptional, collected for the purpose of proving the impossibility of reform and the necessity of revolution. In other words, if we do not have sound statistics we shall have hysterical statistics.

In what follows I quote various statistical items, and offer them as approximations, useful in helping an intelligent discussion of the new theories. In most cases it is easy to agree upon maxima and minima. For example, our daily productions per inhabitant will not exceed sixty cents per day nor fall short of forty cents; the amount paid for the use of land per inhabitant will not fall short of two cents per day, nor will it exceed five cents. Such maxima and minima being fixed, it is possible to begin to think rationally along these lines, and to discredit hysterical conclusions.

The statistical bureaus, State and national, should be more amply endowed than they have been, and more encouragement should be given to special investigations touching the great social question of the production and distribution of wealth. It is surprising to think that it is impossible to tell what the items, "Land,"—pure and simple,—and "Improvements on Land," amount to in any country of the world. Nor even the improvements in the shape of buildings can be told, except from Col. C. D. Wright's Census for Massachusetts in 1885. And yet this item could be fixed with close approximation for State and nation, if the Census bureaus were properly supported. To mention one of the questions that depend on this datum, the single-tax theory could be confirmed or refuted by showing the actual status and trend of the land factor in the production of wealth.

The uninitiated student of English statistics is delighted at first to find the items, "Land" and "Houses," separated. But, after discovering some discrepancies, he is led to inquire more carefully into the use of these technical terms, and is disgusted to find that "Land" means rural property,—not only farms, but also the buildings on them,—and

that "Houses" means buildings in villages and cities together with the lots of ground on which they stand. The following quotations from Mr. Giffen's "The Growth of Capital" will show how confusing this is to an American reader, who would never suspect that "lands" mean farms and farm buildings, while "houses" and "buildings" mean city houses and the lots on which they stand:—

"Lands, from constituting at the beginning of the period 60 per cent of the country, and while forming as late as 1865 about 30 per cent of the property, do not now constitute 20 per cent of the total, there having also been in the most recent years an absolute decrease in amount, while other capital is increasing. Houses, on the other hand, maintain a rather increasing proportion of a total property which is itself constantly increasing in amount; and in the last period of all this tendency has been accentuated till houses—buildings—have come to constitute a fifth part of the total property of the country." (P. 112.)

"If in a country like England we find land at one historical period to constitute 60 per cent or upward of the total wealth, and then by a gradual descent to be less than 20 per cent, the value of the land itself almost all the while steadily increasing, then, in spite of inexactness in the figures, the broad fact is in many ways instructive. Whether the change, if more exactly described, would be from, say 65 or 55 to 25 or 15 per cent, the nature of the change would hardly be affected, while it is obvious that the limit of possible error is not nearly so wide. In comparing England with France, again, or with the United States, it is at once obvious that economic conditions are entirely different, seeing that England has less than a fifth of its wealth in land, while France has half, or more than half, and the United States more than a third." (P. 146.)

"These figures for France. By far the most important item, it will be observed, is that of real property not built upon, answering to the lands in our returns, and for this figure there are undoubtedly abundant data, the net income and selling value (the latter through the registration duties on the transfer of property) being matters of official record. In point of fact, the selling value of real property not built upon in France was officially reckoned by the French Financial Administration in 1882 at 3,663 millions sterling, so that M. de Foville's figure in the above estimate shows a considerable falling off. There are similar means of dealing with the next great item, the house property, which seems to me rather more highly valued than similar property in the valuation of the United Kingdom, if we assume,—as I suppose we may,—that farmhouses are valued with the land, but still not so highly valued as to make the comparison wholly out of place." (P. 128.)

Mr. Mulhall's statistics for all countries, likewise, make land mean country, and houses city property.

I consider the most important item of economic statistics to be that which shows the total product of the State or nation in the form of the average per day for each inhabitant. This item helps the individual citizen to compare his daily wages or his annual income with the quota which he would receive in case the total product of his State or nation

were distributed to each inhabitant without any deductions for capital, for land, or for supervision.

A continual view of this ratio is most healthful for all members of the community. Any person socialistically inclined will ask himself, What does my whole State (Massachusetts, for example), or my nation (the United States, or Russia, or France) produce per day per inhabitant? Taking the wage-earners as about one-third of the population, let each one multiply the average quota per inhabitant for the United States by 3 and compare it with the wages he himself is receiving. The result is astonishing to most persons who take pains to get an accurate inventory of the productions of the nation. According to the last Census, the total value of farm products, including live stock, amounted to $.108 per inhabitant for the whole United States, the manufacturing products to $.184, the mining products to $.0254, making a total in these three great items for each individual of $.3174 (not quite 32 cents) per day, or $2.2218 per week, or $9.522 per calendar month. Multiplying by 3, to obtain the representation of the average wage-earner, we find that he stands for $6.6654 per week, or $28.563 per month. The particulars for the several States are given in the following table:—

AMOUNT PER DAY PER INHABITANT, BY STATES. (UNITED STATES CENSUS OF 1890.)

DIVISIONS AND STATES.	Val. Farm Products.	Val. Manufactured Products.	Val. Mining Products.
North Atlantic Division	$.066	$.357	$.0324
South Atlantic Division	.091	.075	.0078
South Central Division	.120	.024	.0060
North Central Division	.136	.332	.0223
Western Division	.141	.152	.1291
NORTH ATLANTIC DIVISION.			
Maine	.091	.183	.0337
New Hampshire	.100	.277	.0067
Vermont	.168	.148	.0468
Massachusetts	.034	.508	.0045
Rhode Island	.033	.525	.0078
Connecticut	.066	.459	.0113
New York	.074	.384	.0110
New Jersey	.055	.313	.0157
Pennsylvania	.063	.291	.0786
SOUTH ATLANTIC DIVISION.			
Delaware	.105	.267	.0082
Maryland	.070	.210	.0134
District of Columbia	.004	.263	.0005
Virginia	.070	.063	.0100
West Virginia	.073	.054	.0250
North Carolina	.085	.030	.0008
South Carolina	.122	.031	.0072
Georgia	.124	.049	.0045
Florida	.085	.071	.0010

Divisions and States.	Val. Farm Products.	Val. Manufactured Products.	Val. Mining Products.
SOUTH CENTRAL DIVISION.			
Kentucky	.097	.093	.0069
Tennessee	.086	.049	.0100
Alabama	.120	.041	.0178
Mississippi	.156	.018	.0001
Louisiana	.133	.060	.0012
Texas	.137	.042	.0024
Arkansas	.129	.025	.0014
Oklahoma	.020	.005	.....
NORTH CENTRAL DIVISION.			
Ohio	.099	.224	.0199
Indiana	.118	.121	.0121
Illinois	.132	.272	.0123
Michigan	.109	.161	.0927
Wisconsin	.115	.167	.0165
Minnesota	.150	.155	.0243
Iowa	.228	.066	.0147
Missouri	.112	.150	.0163
North Dakota	.319	.029	.0009
South Dakota	.184	.018	.0307
Nebraska	.173	.066	.0007
Kansas	.183	.060	.0114
WESTERN DIVISION.			
Montana	.130	.065	.6994
Wyoming	.101	.058	.0817
Colorado	.087	.144	.2734
New Mexico	.032	.015	.0823
Arizona	.048	.027	.3331
Utah	.064	.061	.1539
Nevada	.162	.040	.6073
Idaho	.125	.025	.2722
Washington	.107	.171	.0235
Oregon	.166	.171	.0108
California	.197	.211	.0447

These estimates take the farm products at the farm and the manufactured products at the mill; but there is an immense industry on the part of the people, namely, that of transportation, which adds to the value of the total product by the time it gets to the hands of the consumer. This item for transportation amounts to $1,076,940,357 per annum, or $.047 per day for each person. Besides this, in the agricultural estimate above, there has been no account made of the small gardening and other home agriculture, nor of the home manufactures which relate to the final processes of preparation of food, and especially to the making of clothing—items not reported in the Census. The former item, which will include the product of household gardens and small farms, may be estimated at four cents a day for each inhabitant, or $14.60 a year. This estimate makes the amount of agricultural productions not reported 37 per cent of the amount reported in the United States Census,—an amount apparently too large. The household manu-

factures which do not get reported in the Census (including cookery, sewing, etc.) are also counted at four cents per day, or $14.60 a year.

Besides these items there is a large contribution to the wealth of the country in the way of use or rental of houses and furniture already existing. Agricultural tools and machinery have been accounted for in the agricultural product. As regards houses and furniture: Allow for the rental of houses and furniture four cents per day, for railroad building $.013, and for miscellaneous $.015. I bring together these items in the following table:—

For the United States.	Value for 1889.	Per Inhabitant per day.
Value Farm Products	$2,460,107,454	$.108
Value Manufactured Products	4,210,393,207	.184
Value Mineral Products	580,012,600	.0254
Value Products Fisheries	44,277,514	.002
Freight Earnings (Land)	734,525,726	.032
Drayage, etc. (estimated) 18 per cent Freight Earnings	157,414,631	.007
Freight Earnings (Water) estimated	140,000,000	.006
Expressage (estimated)	45,000,000	.002
House Rent (estimated)	680,000,000	.030
Furniture Rent (estimated)	228,571,212	.010
Railroad Building (estimated)	300,000,000	.013
Household Manufactures not reported (estimated)	914,284,848	.04
Agricultures not reported (estimated)	914,284,848	.04
Miscellaneous (partly estimated)	342,856,818	.015
Total	$11,751,728,858	$.5144

The total sum is $.5144 for each person,—or $1.5432 for each wage-earner per day, or $10.80 per week. Any person, therefore, receiving eleven dollars a week receives more than the quota that a wage-earner would receive (representing three persons), provided nothing were paid for interest on capital, for the use of land, or for directive power. It is interesting to compare with this the estimate which Mr. Mulhall makes in his recent book, "The Industries and Wealth of Nations" (1896). Comparing the same with the production per day of each inhabitant of Europe the figures are:—

	Europe.	United States.
Farms	$.057	$.0955
Manufactures	.0774	.23
Commerce and Transportation	.0586	.1250
House Rent and Furniture	.02	.05
Personal Service and Miscellaneous	.052	.102
Total	$.2650	$.6025

The study of statistics of national earnings is helpful to those who are disposed to think that an equal division would place the entire population in a condition of luxury. But this is only a negative lesson. It is far more serviceable to learn the exact facts regarding the trend or progress of wealth, as respects both its aggregate and its distribution.

The returns from the income tax of Great Britain afford means of tracing the growth of incomes among all classes in that country. The following figures from Leone Levi's "Wages and Earnings of the Working Classes" (for Great Britain) (P. 48) bear directly on the supposed law of Karl Marx:—

Incomes of	1850-51.	1879-80.
	Number.	Number.
$750 to $1,500	68,864	241,568
1,500 to 2,500	21,367	61,615
2,500 to 5,000	12,258	29,839
5,000 to 15,000	4,708	11,495
15,000 to 50,000	1,551	4,065
50,000 to 250,000	312	910
250,000 and over	26	77
Total.....	144,322	398,835

The population increased only 33 per cent between 1850 and 1880; but the middle class (incomes $750 to $5,000) trebled—102,489 in 1850, to 333,022 in 1880. The moderately wealthy class (incomes $5,000 to $15,000) more than doubled (4,708 to 11,495). The laboring class,[1] whose annual incomes are less than $750, averaged in 1850–51 $265: in 1881 the average had risen to $415. One hundred and eighty thousand, or more, had ascended from the poor class into the class paying an income tax.[2]

The production of the United States has risen from an average of thirty cents in 1850 to nearly fifty-one and a half cents per day for each inhabitant in 1890. This estimate, compared with that of 1890, given in cents per day, is as follows:—

[1] See LEVI, "Wages," etc., p. 53.

[2] For similar statistics, comparing 1843 and 1880, see Mr. GIFFEN'S article in the "Journal of the London Statistical Society," 1883, and the discussion of the same in "The Present Distribution of Wealth in the United States," by C. B. SPAHR, pp. 93, 94.

	1850.	1880.	1890.
Agriculture (including live stock)	12.	14.5	10.8
Manufactures as reported	5.8	10.8	18.4
From transportation in enhanced value of products	1.2	3.7	4.7
Agricultural product consumed in the household and not reported	3.2	4.1	4.
Household manufactures not reported	4.8	4.4	4.
Building of railroads	.75	1.8	1.3
Mining, fisheries, and miscellaneous	.25	2.2	4.24
House and furniture rent	2.	3.	4.
Total cents per day for each person	30.	44.5	51.44

The increase in aggregate earnings is encouraging; and still more so is the evidence of its distribution among all classes of people.

Since the advent of steam and labor-saving machinery, the average annual production has continued to rise; and the amount saved and handed down for use in succeeding years has grown larger. According to Mulhall's tables[1] steam-power itself has increased in the United States since 1860 from three and one half millions to seventeen millions horse-power in 1895; Great Britain and Ireland from two and one-half to thirteen millions horse-power; Germany from seven-eighths of a million to seven and two-thirds millions horse-power; France from one and one-sixth to five millions horse-power. Italy ($1\frac{1}{3}$ millions horse-power in 1895), Spain ($1\frac{1}{7}$ millions), Austria ($2\frac{1}{3}$ millions), and Russia ($2\frac{3}{4}$ millions) have not yet become great users of steam; and their productive power per inhabitant is less.

The daily earnings per inhabitant increased as follows:—

		Cents.	Cents.	
United Kingdom	1860.	43.8 to	49.3 in	1894–5
France	1860.	32.0 to	42.0 in	"
Germany	1866.	25.6 to	34.2 in	"
United States	1860.	38.6 to	58.8 in	"
Russia	1864.	10.9 to	12.6 in	"
Austria	1869.	19.6 to	21.7 in	"
Spain	1860.	18.5 to	20.6 in	"
Italy	1860.	16.3 to	18.6 in	"

There are two origins of very large fortunes. First, the founders may have been persons of great ability to make combinations,—such combinations as reduce the cost of collection and distribution of goods.

[1] "Industries and Wealth of Nations," p. 379.

Combinations that do this save, first, to the producer, who can get more for his goods, and, second, to the consumer, who is saved something in the expense of procuring his food, clothing, fuel, etc. from the producer. This class of wealthy men helps society by reducing the number of the middle-men, and by managing more efficiently collection and distribution. The laying of a pipe-line from the oil regions in the West to the great commercial markets and centres of distribution on the Atlantic coast, for instance, saves immensely in the distribution of oil; rendering it possible for the producers to lower the cost of oil in the cities of the East to one-third its former price: at the same time it enables the oil company itself to amass large fortunes on the balance of saving reserved for its stockholders. Another example is furnished by the trunk railroads connecting the Atlantic with the Mississippi Valley. Vast combinations of capital consolidate roads into through lines; and, by building extra tracks, using steel rails, larger engines, and better cars, the cost of freight, which, thirty years ago, was from three to four cents a mile, is reduced to one cent a mile per ton. The amount of money added to the fortunes of the capitalists by these combinations is enormous; but the amount of money added to the value of Western farms, oil-wells, mines, and house property, by saving in the cost of transportation, is much larger than the amount that capital obtains for its combinations. Besides this, the consumers resident on the Atlantic coast, engaged in manufactures,—the consumers of the agricultural product of the West, pay but one-third as much for transportation on the bread materials, the coal, and the other items brought by railway, and thus share in the aggregate of saving made by the financiers who created, by the aid of capital, the combinations which decrease the cost of connecting producer and consumer. Is it too much to estimate the saving to the producers and consumers at ten times the amount saved by the railroad managers? The total freight charge of the railroads, for instance, for the year 1890 was upward of one billion dollars, and of this one hundred and forty-five million was net profit; but the net profit to the producers and consumers, over the cost of transporting the same materials by the railroad, as it was thirty years ago, must have been nearly two billions.

Take, for further illustration, one other example: viz, the wealthy man who saves vast sums to the producers and consumers by cheapening the process of connecting the raw material with the consumer of the manufactured product,—or the manufacturer who, by unstinted use of capital, improves his processes to such an extent that he increases the

amount of product per laborer and at the same time the quality of the product. Take still another class of wealthy men who build an improved kind of dwelling-house or invest immense sums in business houses or public works to light and heat a city or furnish it with pure water or any other hygienic appliances. This class saves a vast expense to the community as a whole, and takes to itself its proportion of the saving made, by way of profit on its investment.

This class of capitalists may be called "captains of industry." They save substantially for the whole of the community. They make useless, it is true, vast numbers of middle-men (who levy a larger toll than is necessary on the transfer of the goods from the producer to the ultimate consumer); but at the same time they open new vocations for a still larger number of persons than they have displaced from these middle positions. The increase of the manufacturing quota of the United States over the quota of the population engaged in producing raw material in the past thirty years proves this, that the captains of industry open new vocations for labor and assist in the readjustment of vocations. The new employments opened by capital are of a kind requiring higher skill in the laborer. They require of him more directive power and less exercise of bone and muscle. They lay a greater demand on the directive power of the brain than on the unskilled hand.

A second class of wealthy men limit their combinations to the stock-market. They speculate in the stocks belonging to the substantial enterprises of the first class of wealthy men, namely, those who make business combinations. Neither class can be said to make their money to any extent by "grinding the poor"; for the first class have earned much more for society as a whole than they have accumulated as profits.

It is evident that careful statistics should be obtained, showing what capital has done and is doing in the way of bringing together the producer of raw material and the consumer of the ultimate product by decreasing the expense of this transfer; how much it has done to readjust the vocations of those persons who were working at employments which have become obsolete, and to place them in positions where their daily labor contributes far more to the benefit of the entire community. In other words, what are the statistics regarding the use of capital in this important matter of diversifying human labor and increasing its wages?

W. T. HARRIS.

THE HEREDITY OF ACQUIRED CHARACTERISTICS.

For twelve years a titanic contention has been developing in the scientific world, especially among Anglo-Saxons, between two giants of science, Spencer and Darwin, as to whether or not acquired traits may be transmitted hereditarily. This question is of immense importance, not only in explaining the origin of the zoölogical modifications in different species, but also in aiding us to decide whether we can profit organically, so to speak, by the actions of our fathers, *i. e.*, whether the labor of the past can be accumulated and transformed into labor that may be called organic, or whether such labor must be wholly lost.

Especially during the last five years, every new publication referring to this subject has given even stronger evidence of the heredity of acquired traits, thus tending to support Spencer against Weissmann. I have gone a step further in an article written for the "Contemporary Review," in which I show that even our gestures are inherited from ancestors of thousands of years ago. It suffices to mention the attitude of prayer, by which the conquered—stretching out their hands and bending their knees, to show that they were unarmed and ready to allow themselves to be bound—endeavored to disarm the ferocity of the conqueror. Now this gesture, which we see repeated so many times in the Egyptian and Chaldean sculptures, I myself have seen reproduced instinctively by one of my own children not yet two years old, who, when a terrible sickness hindered him from speaking, invoked our pity by a gesture never learned.

Much easier to find, and greater in number, are facts proving that physical characteristics artificially acquired have been hereditarily transmitted. Quite recently, the eminent naturalist, Giacoma Cattaneo, in his work, "I fattori dell' evoluzione biologica" (Genoa, 1897), gave, as an illustration, the sea-lobster, which, possessing the habit of inserting the abdomen into the shells of other mollusks, has the abdomen and the hind parts of the cephalothorax decalcified and membranous, the last two pairs of thoracic claws shortened, and the penultimate pair of abdominal pseudo-claws transformed into a hook. The latter fixes the

animal to its dwelling, so that the abdomen can roll itself to the right or to the left, according to the direction of the turns in the shell it occupies. The fact that the larvæ present these characteristics before occupying the shell gives us an example of an individual moulding itself after the form of an outside body destined for its dwelling.

I have found in my study of camels, however, an example perhaps still more curious and significant. It is known that, with the exception of its stature, the camel is absolutely a llama; its blood globules being elliptical, its teeth reptilian in form, its rudimentary third and fifth toes permanent. It possesses, further, that mysterious pouch of the stomach for the storage of fluids, the same kind of callosity on breast-bone and knees, acquired by the camel through kneeling to receive loads. But the camel differs strikingly from the llama in that it possesses the hump,—that fatty mass, with a special development of some of the spinal processes. For a long time, I could not explain this hump. One day, however, a poor porter, having a complaint in his chest, came to consult me; and, on examination, I found, half-way down his back, precisely where he was wont to rest his burdens, a tumor larger than a man's fist, formed almost wholly of adipose tissue. It suddenly occurred to me that this lump—which not only caused the porter no inconvenience, but even aided him in his work—might perhaps serve as a clue to my mystery of the camel's hump. However, in science more than elsewhere, the proverb, "One swallow does not make a summer," holds good. I recognized at once the necessity of examining many other porters; but as few of the healthy ones would allow themselves to be stripped—even for pay—this was not an easy task. Modest sensitiveness, which to science is as smoke in the eyes, hindered my investigations. Nevertheless, with the aid of my colleagues, I succeeded in examining seventy porters of various occupations, and I was able to find four more examples of this fatty tumor.[1]

What was of even greater value in our inquiry was the fact that 50 per cent of the porters examined, although having no real hump, yet presented an unusual protuberance of the spinal processes; and all around this there was a thickening and clogging of the subcutaneous tissue, so as to form a true boss, but without a definite contour. To this the porters have given the special name, "tuaz," the etymological origin of which word my good friends Flechia and Teza, masters of philology, will never be able to tell me.[2]

[1] "Sur le lipome des portefaix et la bosse de chameaux."—"Bulletin de la Société d'Anthropologie de Bruxelles," ii., fas. 4. [2] *Ibid.*

Two veterans of the art presented formations still more singular, namely, curvatures of the spine, or true acquired humps; while the breast was puffed up.

Now one who would trust to hypotheses, contenting himself with few facts, might think that he had solved the problem; for if the backs of our workmen are changed by a few years of burden-carrying, how much more natural that, after uncountable ages of burden-carrying, a modification of the backs of camels should result. For in the case of the camel, the effects of heredity and selection must be added to the mechanical effect of carrying, because the masters of the steppes and of the desert must have found the animal with, so to speak, an anatomical saddle, more serviceable than the llama, with his slippery back. To corroborate these researches, we may add the discoveries of Cope,[1] of Baudry, and especially of Lombardini,[2] who became the greatest of the European students of the camel, which prove that this animal, by its anatomical characteristics, is among the most ancient,—so ancient, in fact, that in geological time it almost approaches the fossils. In the historic world, however, it appears only as a domestic animal, and in great numbers. Darwin showed that these conditions rendered the transformations in individuals and species more easy; particularly in the warm regions of India and Africa, where other animals, such as the ox and the zebu, present, under pressure of the yoke, fatty accretions. And as the camel has no near relatives among wild animals,—or at least very uncertain ones,—its fossil ancestors were much more plentiful in those regions of America where not only the llama, but, what is of more consequence, its wild kinsman, the guanaco, exists, through which we are enabled to follow out its whole descent.

Further, this hump—which really, as in the tumors of the porters, is only a collection of fat around a slight protuberance of the vertebral processes—is atrophied in the racing camel, *Mahhari*, as well as in the camel when in a wild state, that is, when it has reverted to that condition. On the other hand, it is found well formed in the new-born creature; and in the little camel, a month old, who has never borne a burden, the hump is as great, proportionately, as in the adult. The same is true of those callosities of the knees and breasts, which arise in the camel from continual kneeling to receive its load, and are acquired like callosities on the human body. These callosities are wanting in the camel's wild brethren, but are perfectly apparent in the young

[1] "The Phylogeny of the Camel." Philadelphia, 1875.
[2] "Dei Cammelli." Pisa, 1879.

camel before he has begun to work.[1] I may add that these callosities are found in the American llama, while they are missing in the guanaco, which is a wild llama.

What I have stated is confirmed by a study of the dromedary, which is a camel with one hump. Lombardini has discovered, in fact, that the single hump of the dromedary is nothing but a fusion of the double hump. As the distribution of loads, under the primitive method of saddling, had produced on that llama which became the camel the double collection of fat,—owing to the double point of resistance,—so, later, when the Turcomans changed the form of the trapping, the second hump began to disappear. The latter process was aided by art; for the Turcomans were accustomed to amputate one of the humps of the newborn camel, for better convenience of storage; and they preferred to breed from those animals having the second hump less developed. Consequently, this anomaly, created by man, became modified by man; and thereby double, or rather new, proof is presented of the heredity of acquired characteristics. That thousands of years were needed to accomplish this end is shown by the fact that in very ancient monuments the camel is represented with two humps, perfectly formed.

It appears that the camel entirely without a hump has existed only in the forms of llama, alpaca, and guanaco, which would support the theory that a large percentage of our domestic animals originated in America, and lived there in a wild state, as did the horse, in exceedingly remote times. Even the Arabic name of the camel, "Hamal," which means to bear, indicates that prehistoric man knew it only as a beast of burden.

But the tumor of the camel has enabled me to explain to my own satisfaction the genesis of another acquired characteristic which has become hereditary in the human race. It is that sort of adipose appendage attached to the buttocks and the flanks of our Hottentot sisters, on which their infants are supported while they themselves are busied in work. Here a demonstration is afforded similar to that concerning the adipose tumors of the porters; the researches of Blainville having proved that this tumor of the Hottentots consists simply of fat, with a little connective tissue. That this also is a very ancient development, is shown by the fact that the Pyramids of King Thothmes II present us with a picture of the tributaries of that Pharaoh, in which the women display this appendage in very characteristic form. Further evidence on this point is furnished by the discoveries of Fritsch, which

[1] V. CATTANEO: "La Gobba e la Callosità dei Cammelli." Milan, 1896.

show that in the Hottentots, as in many other equatorial peoples, adipose tissue abounds everywhere in the body, even producing wrinkles in the young; and it is natural that it should become increased in quantity, forming a new organ where the pressure and irritation are greatest.[1] Finally, the Hottentot, a residuum of the dwarf races that once populated the globe and now have disappeared, is, like the camel, one of those almost fossil races,—a fact made manifest by his general structure, his dwarfishness, and his tufted hair. His age-long existence has afforded opportunity for the production of profound modifications.

Thus far I have spoken only of physical characteristics; but in the Hebrews the psychical as well as the physical have been transmitted and modified. From the study of very ancient Hebrew skulls, and from the representation of the Hebrew scribe in the Egyptian Pyramids, it appears certain that many of the physical characteristics of the modern Hebrew have been inherited from thousands of years ago; as, for example, the dolichocephalism, prognathism, thickness of eyebrow, and fulness of lips. In regard to the psychical characteristics, we find: tenacity of purpose, even to the point of obstinacy, religious credulity, clannishness, intolerance, a spirit of rebellion carried often as far as anarchy. These traits have led to the greatest religious and social rebellions. Next, we have the ethical passion; almost all apostles of moral reform having risen from the Hebrews. Certainly Semitic, if not strictly Hebrew, was the commercial instinct that led the Phœnicians to invent the use of money and weights; that made of the Sidonians the greatest manufacturers of stuffs and of glass; and of the Hebrews, even under the Assyrians, the greatest financiers of the Assyrian world. In the time of Alexander the Hebrews were the most powerful merchants of Babylon, of Antioch, and of Crete, in which latter island the merchants were wont to conceal their treasures in troublous times.[2] But from climatic causes, and through race minglings,—which certainly have been frequent,—many of the physical characteristics have disappeared, the Hebrews in England having fine and blond skins, and those of Italy, rounded or squarish skulls.

I repeat that many of the psychical characteristics of the Hebrews have become completely changed, so that now they are like those of their fellow-citizens. While originally they had a true

[1] For further data, *vide* LOMBROSO: "Donna delinquente," 1890; BLANCHARD: "La Steatopigie des Ottentottes," 1879.

[2] EWALD: "Die Alterthumer der Völke Israel," 1895.

hatred of the plastic arts, they now have painters and sculptors: we find among them spendthrifts and sceptics. The greatest opposers of the religious idea, Acosta and Spinoza, were born Hebrews. Finally, they now have characteristics which they not only lacked at first, but which they could not have acquired without an admixture of other blood. Courage and contempt of life were among the salient characteristics of the race that poured torrents of its own blood in defence of the walls of Massada, which stronghold the conqueror, on his entrance, found empty. Such a spectacle was new, even to a Roman.

The Abyssinian is the true heir and the nearest relation of the Hebrew; having emigrated in ancient times from Judea in several expeditions. The latter began, under Solomon, with an expedition of 120,000 men,—warriors and priests,—who established a son of Solomon upon the throne. Then followed, in the times of Nebuchadnezzar and Shalmaneser, a second and a third emigration. Finally, in the time of Titus, a fourth took place, which established itself in the Valley of Samen, where the artisan's craft was exercised. These pure Hebrews formed that military aristocracy which governed feudally the people called, with contempt, "mixed" or Abyssinians. This people became converted to Christianity; but they preserved from their Hebrew origin, besides the peculiarities of face and skull, many of the customs, *e. g.*, paschal rites, offering of food in the temple; the use of musical instruments,—the cithern for example,—the custom of religious dances, fasts, aversion to swine, and dislike of weapons. Until a few years ago, they employed the Davidean sling. The Abyssinians manifest not only a cohesion very rare in the African world, but such courage and extraordinary warlike ability that they have discomfited the best-armed civilized nations. Courage and the art of war were psychical characteristics hereditary within them. The age-long humiliation, begun at the time of the Roman conquest, so crushed the Hebrews, as to leave surviving only the timid and those who, showing less boldness, were able to avoid or forestall oppression. The result is that, instead of warlike and heroic courage, we find among characteristics of the Hebrews timidity and love of gain. This may be established statistically by the very small number of suicides, and of soldiers.

While Jacobs[2] finds in Europe almost twice as many Hebrew as

[1] JOSEPHUS, vol. II.

[2] J. JACOBS: "Comparative Distribution of Ability among the Hebrews," in the "Journal of Anthrop. Institute of Great Britain and Ireland," London, 1885–86, pp. 251–79, table XV.

Christian lawyers and physicians, ten times as many philologists and metaphysicians, seven times as many musicians, almost twice as many poets of talent, yet, among soldiers, the proportion of Hebrews is reduced almost to nothing—six against fifty-six.

As to suicides, according to Legoit, among Germans and Austrians there are 102 suicides per million among Protestants; 62 per million among Catholics; and 48 per million among Hebrews.[1] Yet the Hebrews furnish four or five times as many mad persons as their Catholic fellow-citizens; and it is known that the greater proportion of suicides are mad. Avidity of gain is a characteristic that has now become almost hereditary among the Hebrews, though not among the Abyssinians. Again, we find among the Hebrews an excessive activity and curiosity, political and scientific; while inertia, apathy, and the absence of scientific curiosity, are proverbial in the Semite. For him, "God is great!" is the whole explanation of the universe; and science concludes with lyric poetry and proverbs.[2] The Arabs let the best hydraulic constructions of the Romans go to ruin; and the Semite in time of scarcity will die of hunger rather than increase the amount of his labor. This excessive apathy and the ignorance resulting therefrom, disappeared in the Hebrew, giving place, as I have stated, to an unbounded curiosity and a feverish activity in all branches of human endeavor,—even in those sciences, like mathematics, to which his talent always shows itself to be unadapted,[3]—making the Hebrew the born reporter and journalist of the modern world.

Here we have, then, a series of acquired psychical characteristics which have become hereditary. This, no doubt, is due to some extent to climatic influences,—transportation to colder countries;—but more particularly to selection by persecution, as only by activity and an appearance of meanness and sordidness could the Hebrews have been saved from the fierce persecutions against which bold resistance would have been of no avail. It was this fact that made those vices prevail, and that caused the extinction, little by little, of those qualities—courage, generosity, and boldness—that would have been more harmful than useful under the particular conditions.

These, combined with climatic influences and other peculiar circumstances effective in rendering new qualities in the Hebrews hereditary, make it easy for us to see why in some regions, especially in

[1] MORSELLI, "Suicidi," 1876, corroborates these figures.
[2] RENAN: "Histoire des Langues sémitiques."
[3] HERSCHEL, BEER, SYLVESTER, GOLDSCHMIDT, etc.

warm countries and those where there was no persecution, they have not progressed a step beyond their fellow-countrymen. Thus in Abyssinia, they have excelled in nothing, although—perhaps because—they have suffered no persecutions in that country. They have deteriorated also in their native land of Judea, although there they have been the objects of peculiar care from their devout coreligionists of all Europe.

Moreover, does not the North American offer the best evidence of the heredity of newly acquired characteristics, both physical and psychical? The skin has become darker, the orbits larger, the neck longer, the head smaller and more rounded, the fingers longer than those of his Anglo-Saxon father. And as to his moral nature, it is well known how much he has changed from the British type. The overwhelming reverence of the English for tradition and historic formalism has been replaced by a true passion for modernity. For in America, the machine writes for you, sews, cooks, records, and calculates for you; venerable statutes are partly superseded by lynch law, and Anglican orthodoxy gives place to the most whimsical heterodoxies. How does this happen? It happens because a race among the most robust of Europe has been transported to different surroundings; and the struggle for existence—rendered fiercer in the wilderness and among hostile tribes,—if it served to destroy the weaker, gave room for the greater development of the strong, in whom qualities, perhaps already existent in the pacific Briton, but not yet unfolded for lack of occasion, emerged in the new adaptations required for new adventures. But, above all, the American has broken completely all the constraints and bonds of historical traditions that have remained so tenacious in Europe: he has, on the contrary, developed the sense of the new, and of independence, in opposition to the respect for what is old and for the customs and tradition, which, for opposite reasons, has remained instinctive in the nations of the old continent. The English habits vanished; and the great struggles against Nature, as well as the use of machinery and of the printing-press, gave to the Yankee the same power which enabled the first white man to subjugate the dog and the horse. While these conditions detached him—perhaps fortunately—from every æsthetic sense, they developed, even to the point of a natural disposition, the sense of the grandiose and the gigantic, which he carries into his buildings, his monuments, and his undertakings generally.

But, after all, a single proof will suffice to show the acquirement of psychical characteristics: Civilized man has acquired in the cerebral

cortex,—in a fold of the parietal lobe,—the psychical centre of reading, which in certain maladies, especially in apoplexy, is paralyzed, causing the reading power to disappear. Now this centre has positively been acquired within historic time, although the period cannot be definitely fixed; it certainly is not found in men yet savage. The same may be said of the speech-centre,—the third left frontal convolution,—since everything goes to prove that the first man had no language, just as the new-born child has no language, and the Hottentots and the Weddahs have but very imperfect ones. This organ continues to become more and more differentiated in our modern civilization. Where can be found a stronger evidence that there are acquired psychical characteristics?

CESARE LOMBROSO.

BIMETALLISM A NECESSITY.

A ROYAL Commission, composed of eminent men, appointed nearly four years ago to enquire into the subject of agricultural depression in England, issued its final report during the month of August last. The principal report, signed by fourteen members, deals with miscellaneous subjects which bear generally upon the agricultural position, and with the recommendations and conclusions based thereon. A supplementary report, signed by ten out of the sixteen commissioners, deals solely with the evidence submitted for and against a change in the monetary policy of England as a remedy for the agricultural depression. After carefully considering the evidence, these ten commissioners have arrived at certain conclusions, the most important of which may be briefly stated as follows:—

First. That the agricultural depression is not confined to England, but is general throughout Europe and the Colonies, and has been especially severe in the United States. That with regard to wheat, the commodity which had fallen the most, there was no evidence to show that the decline had been caused by over-production, the statistics showing, on the contrary, that, in the words of Sir Robert Giffen, "the growth of the acreage of wheat has lagged behind the growth of population."

Second. That the only two countries which appear to have been free from agricultural depression are India and the Argentine Republic,—the one with a silver and the other with a paper currency.

Third. That agriculture has suffered and is suffering severely from the results of the great monetary changes made in certain countries of Europe and in the United States in 1873.

Fourth. That if an international arrangement were made for the opening to silver of the mints abroad and in India, and its restoration —either wholly or partially—to the position it filled prior to 1873, it would be of the greatest benefit to the agricultural industry, and that the English Government should heartily coöperate with foreign Powers in promoting a conference to bring about this result, and thereby give effect to the unanimous resolution in the House of Commons passed in February, 1895.

In view of the high authority of this report, and in view also of the world-wide interest attaching to the labors of the American "Wolcott Commission,"—now seeking to establish preliminary agreements that will justify the calling of an International Conference,—the Monetary Question presents itself as the most important one now pressing upon the commercial world for a final settlement. Its solution becomes more and more urgent from an English point of view, with the recent rapid decline in the price of silver in London to the lowest figures ever known, which is certain to have disastrous effects upon the great trade in opium, silks, fabrics, etc., between China, on the one hand, and England and India, on the other. That the question has passed in England beyond the stage of merely academic discussion, is evidenced by the fact that within the last few weeks there has been presented to Lord Salisbury's Ministry, upon this subject, the largest and most important petition ever formulated by the English Labor Party. It is signed by more than three hundred and fifty local societies, representing every branch of industry; and it demands that the Government profit by the present favorable opportunity to secure, in accordance with the unanimous declaration of the House of Commons, an international monetary agreement, and thereby rescue the country from the evil effects upon its productive industries of the instability in the relative value of gold and silver that has existed since 1873.

In order justly to appreciate the merits of the "irrepressible conflict" which is waging between the advocates of the Bimetallic and the Monometallic systems, a correct conception of the nature and functions of money is a necessary preliminary.

Money is an instrument of valuation, established by law to measure, compare, and exchange values, and to serve as a legal tender for debts. The material of money is in principle unimportant, except so far as it is liable to affect the aggregate amount in existence,—the total monetary mass. The value of money is increased or decreased, *ceteris paribus*, in inverse proportion to its volume. Indefinite issues of money create redundancy and depreciation. Comparative fixity or limitation of supply is therefore requisite to give reasonable stability to the value (purchasing power) of money. Paper money can be increased in amount indefinitely at the will of the sovereign or of the legislator; but metallic money is susceptible of only a limited and measurable annual increase, which distributes itself automatically among all the nations. Added to the total accumulated monetary mass existing throughout the world, this increase forms but a very small percentage, and serves barely to

supply the needs of constantly increasing population, production, commerce, and wealth. For these reasons it is agreed that metallic money alone constitutes a safe standard of value.

From the dawn of history, gold and silver have been selected as the world's money metals. Hence they have received the name of "the precious metals." Silver remains to this day the sole *universal* money metal, although it is no longer coined into full legal-tender money by the chief commercial nations. Hundreds of millions of people in the world do not use gold as money; but no nation can dispense with silver money.

It is the legal function of money that gives to the metal its great value. It is the legislator who bestows upon the metal this function. The legislator can withdraw the money function and thereby destroy the metal's great value. Hence the term, "intrinsic value," applied to money, is misleading. Its value is almost entirely *extrinsic*. Aristotle says: "Money itself is only a frivolity, a futility; it has value only by the law and not by nature, inasmuch as a change of agreement among those who use it can depreciate it completely." If an example be needed to prove conclusively the accuracy of the great philosopher's conception of money, we have it in the monetary history of the last twenty-five years.

Bimetallism is the adoption of gold and silver as the standard of value, with free and unlimited coinage of both metals into full legal-tender money, at a ratio of weight fixed by law. The Bimetallic *régime* prevailed in Europe and in the United States until 1873, when it was destroyed by the closing of the French mint to the unlimited coinage of silver, following upon the legislative demonetization of silver in Germany and in the United States. While Bimetallism existed, the legal ratio was 16 ounces of silver to 1 of gold in the United States, and 15½ of silver to 1 of gold in France. The French ratio ruled the world as long as the mints were open; France holding a preponderating position as possessor of the monetary metals. The apparent "commercial value" of silver in other countries, as different from the mint value, was only the reflection of the difference in ratios at different mints, in the absence of an international accord. The effect of this difference in ratios was that the great body of silver flowed to that country where the mint ratio was most favorable to it, namely, France. But all countries, including Monometallic England, participated equally in the benefits which Bimetallism conferred; that is to say, stability of foreign exchanges and a liberal addition to the world's supply of money from

the combined production of both silver and gold. The cost of production in no wise affected the money value of either of the precious metals. The law was supreme, unaffected either by the cost or by the quantity of the world's production. Only unimportant oscillations around the French legal parity occurred in the market ratio of the two metals, as special demands arose for one or the other for export. France was ready at all times to supply at a minute premium, which to her was a clear profit, any foreign demand for either metal, replacing it in her own currency with the other. Thus it happened that prior to 1850 gold was scarce in the circulating medium of France; while after 1850 it became very abundant. But the purchasing power of the two metals was at all times equal. The production of silver in the proportion of weight prescribed by the mint ratio ($15\frac{1}{2}$ to 1) was in the early part of this century three times that of gold. From 1850 to 1860, the conditions were reversed, the production of gold being three times that of silver. Later, the conditions were again greatly changed, the supply of silver increasing largely, while that of gold diminished. But the French Bimetallic law of 1803 always controlled the market ratio of the metals until 1873, when the French mint was closed to the unlimited coinage of silver. This was done in September; and yet, up to that very month, silver had been quoted at a minute premium over the legal ratio (in August, 8.50 per mille).[1] Its divergence from gold began with that event. For the first time in monetary history, the mints of no one of the great commercial nations were open to the unlimited coinage of both gold and silver. The link which till then had bound together the two metals throughout the world into one money, one Bimetallic standard of values, was broken.

Bimetallism does not mean, as some suppose, redemption, or convertibility, of one metal by or into the other. Both metals stand on a perfect equality before the law. In the United States, the silver dollars and silver certificates at present outstanding—four hundred and fifty millions in all—are not legally redeemable in gold. But their legal-tender quality for all debts keeps them at a parity with gold. There is no good reason to doubt that the whole amount of silver belonging to the Government, now remaining in the United States Treasury —about one hundred and thirty million dollars, including the silver bullion—could be paid out, in dollars or in certificates, and retained in circulation at par with gold, equally with the silver dollars and cer-

[1] See statistical tables in Report of M. de FOVILLE, Director of the French Mint, August, 1896.

tificates now outstanding. In Germany there are still in existence one hundred and fifty millions full legal-tender silver thalers—coined at the ratio of 15½ to 1—which are as good for all payments as the gold coins. The same is true of the four hundred million dollars in full legal-tender French silver 5-franc pieces in France. Even the Italian and Belgian silver 5-franc pieces, of which one hundred million dollars' worth are estimated still to exist in France, have always passed at their full face value, though, strictly speaking, they are not legal tender between individuals. But the fact that the French Government, under the terms of the Latin Union, receives them for taxes and other dues, supports them at par with all forms of money.

Turgot, the great economist, and Minister of Finance to Louis XVI, says:—

"Gold and silver are constituted money, and universal money, by the nature of things, independently of all convention and all law."

Daniel Webster said in the United States Senate, in 1836:—

"Gold and silver is the money of the Constitution. The Constitutional standard of value is established, and cannot be overturned. To overturn it would shake the whole system. Gold and silver at rates fixed by Congress constitutes the legal standard of value in this country, and neither Congress nor any State has authority to establish any other standard or dispose of this."

Michel Chevalier, in the preface to his French translation of Humboldt's "Gold and Silver," says:—

"By reason of the part which gold and silver play in all the transactions of mankind, in the contracts between States and individuals . . . every important change in the value of gold and silver is a serious event, a sort of revolution."

The correctness and wisdom of these views appear never to have been questioned until after the great discoveries of gold in California and Australia, at which time this same Michel Chevalier began to advocate Silver-Monometallism. In 1859, he published his famous work on "The Probable Fall in the Value of Gold," in which he argued in favor of the demonetization of gold by reason of its enormously increased production. Richard Cobden wrote the preface to the English translation of this work, and in it reiterated Chevalier's statement, that the production of gold had amounted in ten years to about as much as the entire production of the world during the three hundred and fifty-six years which intervened between the date of the discovery of America by Columbus and the year 1848. The Gold-Monometallists of later days have never had half so specious an argument against

the fitness of silver to serve as money as that argument against the fitness of gold.

Fortunately, however, gold was not demonetized; and the historian Alison, writing at the same time, and describing the previous distress and the subsequent prosperity, says: "The era of a contracted currency and consequent low prices and general misery, interrupted by passing gleams of prosperity, was at an end."

But about 1865, Michel Chevalier changed his mind and became the leader of the Gold-Monometallists, urging the demonetization of silver with the same confidence and zeal that he had previously manifested in favor of the demonetization of gold. His later views find in France to-day their strongest advocate in M. Paul Leroy-Beaulieu, his son-in-law, and successor as editor of "L'Économiste Français"; while the ablest and most zealous defender of Bimetallism is M. Edmond Théry, editor of "L'Économiste Européen."

In the month of April, 1870, Wolowski, the well-known French economist, combated the views of Michel Chevalier before a French currency commission, pointing out with remarkable accuracy the inevitable fall in price of all commodities, as well as the great decline in the value of agricultural land and the increased burden of mortgages, which the demonetization of silver would entail. He contended that an equilibrium should be maintained between the amount of business transacted and the mass of metallic instruments which serve to transact it; and he claimed that the annual increase of the two precious metals combined was hardly sufficient to keep pace with the immense development of human industry, the rapid accumulation of capital, and the active movement of exchanges of every nature. He said:—

> "What the proposed change means is a veritable monetary revolution, and the worst of revolutions,—one that leads to the unknown. Violent attacks are being made in our day on property. There is little to fear from open attacks upon the laws of human society that have grown up with man, emanating from his very nature. But I do not feel that there is the same security when it is a question of attacks which are the more perilous because those who make them are often not aware of their serious nature. Such would be the proposed measure regarding the demonetization of silver."

The soundness of Wolowski's views has since been proved. He did not, however, touch upon what is the strongest argument against Gold-Monometallism, namely, the dislocation of the exchanges between nations trading upon a gold basis and those trading upon the basis of

silver, or of paper money. In reducing to half-price in our money the value of the money of the Silver countries, we at the same time reduce to half-price the cost, in our money, of whatever the Silver countries export. In reducing by one-half the cost to us of the exports of those countries, we inevitably reduce in somewhat similar proportion the price of our own products coming into competition with those exports. Again, by making gold the sole metal available for the resumption of specie payments, withholding it to an enormous aggregate from commercial use, and reducing it, as at present in Russia and Austria, to the position of a prisoner of state, we aggravate and continue the domination of paper money in other countries—as in the case of Argentina —and perpetuate a virtual bounty on the exports of those countries equal to the premium on gold.

It was Cernuschi who developed fully the argument based on the dislocation of foreign exchanges, and pointed out the disastrous consequences thereof to the industries of the gold-standard nations. The same great master established the complete scientific theory of Bimetallism, and gave to it, in all modern languages, its appropriate name.

In studying the question of Bimetallism one should keep clearly in mind: First, that money is not the value *for which*, but the *valuer by which*, commodities are exchanged and debts are paid. Money is only a counter, a marker, a measure of value, and is not by nature value itself. Second, that the precious metals, gold and silver, acquire their great worth because they are used as money,—*not* that money *as money* derives its value from the material of which it is made. As Paulus, the great jurist, says, "money circulates with a power which it derives, not from its substance, but from its *quantity*." Third, the material of which money is made, as pointed out by Professor Bain, is not in itself the standard, but the register in which the standard is recorded. The material of money bears a somewhat similar relation to value that the dial of a clock does to time. Hence the term "double standard" is an erroneous one. It is not the *standard* that is double, but the metals in which the standard is registered. The two metals conjointly, possessing equally the debt-paying function at a fixed ratio of weight, form one standard, one money. Daniel Webster understood this, as his careful language, above quoted, unmistakably indicates. His words are: "Gold and silver . . . *constitutes* the legal standard of value." It was to correct the misconception caused by the use of this misnomer, "double standard," that Cernuschi originated, in 1869, the name "Bimetallism," which covers the real principle at issue as perfectly as any single word can do.

It is impossible to have any standard of value that will be absolutely invariable, as the numbers of mankind, as well as the activity of industry and of commerce can never be fixed. Variations in the amount of existing money, variations in the amount of transactions requiring money, variations in the efficiency of credit contrivances for economizing the use of money, cannot exactly coincide. Both theory and experience demonstrate, however, that a standard based upon the aggregate mass of the two metals is less variable, and therefore more equitable, than a standard based upon each metal singly; because the total monetary mass of the two combined is subject to less proportionate change in quantity, from the varying production of different periods, than is the mass of either metal alone. Moreover, it is a mathematical impossibility to maintain even an approximately stable standard of value while two unrelated and discordant monometallisms prevail among intertrading nations. To secure stability, the link between those systems, which virtually secured to the commercial world up to 1873 one Bimetallic money, must be reëstablished.

It is undoubtedly true that the great majority of men, not having carefully studied the Monetary Question, incline at first to the side of Gold-Monometallism. This has been the case with nearly all the great advocates of Bimetallism in Europe to-day. They have become converted to the Bimetallic faith from observation of the evil consequences of the gold standard, and by careful, unbiassed search for the cause. It is only after study and reflection that the true bearings of the Silver Question can be understood.

In view of the rapid growth of Bimetallic sentiment throughout Christendom during the last few years, it is neither wise nor useful to attempt longer to stifle it under the weight of an intolerant dogmatism. The opinion of the great mass of the agricultural classes of both Europe and America, supported by distinguished economists and statesmen in every country, deserves a respectful hearing. Those who wear the shoe know best where it pinches. The agricultural classes have in the past suffered most from the shrinkage in prices brought about by the witless error of sundering silver from and subordinating it to gold. Even those who scoff at silver and hug their gold are short-sighted indeed, if they believe that they can permanently prosper while the great producing classes are being impoverished.

EDWARD TUCK.

A SINGLE STANDARD INEVITABLE.

WHILE in theory International Bimetallism seems desirable, and in practice might prove temporarily advantageous to a few nations, it would at once be detrimental to the large majority of nations and ultimately to all. That the result would be a failure, is proved by the experiment so often and fruitlessly attempted by single nations, and once by a collection of nations. The history of five hundred years would be a lost lesson if this could not be accepted as an established fact. Governments have often shown—and at no period of history more markedly than during the present generation—a tendency to regulate and control private as well as public interests; laws attempting to govern private transactions, trade, commerce, finance, etc., being familiar enough. Even during the centuries of absolute despotic rule,—when life was at the mercy of governments, without as well as with judicial process; when imprisonment and death were constantly visited, upon slight or no evidence, on those found guilty of minor offences,—even then, governments were utterly unable to regulate questions of currency and trade. The edicts forbidding the exportation of gold or of silver, as the one or the other happened at the time to be the more valuable metal; the arbitrary decrees fixing the ratio between the two, stipulating the value of wheat, of provisions, of various products, of human labor, etc., were absolutely futile. Men could be imprisoned or executed; but while at liberty they could not be made to lose money and sacrifice the result of their labor and savings. As theoretically government has always been for the benefit of the people, any arbitrary interference with their daily life and pursuits, and above all with the means—often end—of life, has been inevitably fruitless.

There is no more justification for meddling with economic laws than with those of nature. As well change the law of gravitation as Gresham's law. The operation of the latter was felt and deplored throughout the Middle Ages; and innumerable attempts to counteract its effects were made; royal edict succeeded royal edict with absolutely no result, although enforced with the most drastic punishments. First,

Onésime, financial adviser to Charles V of France, formulated the great economic law in a remarkable treatise; a half-century later, Copernicus made the same—and apparently independent—discovery; and, last of all, Sir Thomas Gresham, in the reign of Queen Elizabeth, formulated it for the third known time and secured the credit of discovering what had been discovered two centuries before. Since then, as before, the cheaper money has driven out the dearer, silver and gold alternately, as the legal ratio varied from the commercial value: clipped and light-weight coin has replaced full and perfect coin. Commercial value has invariably prevailed over legal ratio; and commercial value is governed by the greatest of all economic laws, that of supply and demand. No nation has ever been on a real Bimetallic basis for any length of time. Bimetallic in theory, it has been Monometallic in fact. In France,—usually instanced as the greatest and most successful Bimetallic country,—the legal and commercial ratio of gold and silver since 1803 corresponded for one year only. Gold was undervalued for sixty-eight years, and silver for twenty-one years.

The causes tending to make Bimetallism impossible and the single standard inevitable are (*a*) natural and (*b*) artificial.

(*a*) Natural causes are:

1.—The inexorable operation of the economic law known as "Gresham's law."

2.—The constantly falling market-value of silver, owing to apparently inexhaustible supplies, improved methods of extracting the ore, cessation of any corresponding demand, etc.

3.—The increasing production of gold, which refutes the contention of the partisans of silver and the Bimetallists, that there is not enough gold in the world for the uses of trade.

4.—The constantly diminishing use of metallic money, and the corresponding increase of systems of credit, rendering metallic money useful chiefly for great emergencies, such as national reserves, the war-chests of nations, and for retail transactions. For the first purpose, gold is unquestionably superior to any other standard of value: for the latter, the same purpose is served by paper based on gold and by subsidiary silver.

5.—Greater facilities for intercommunication between nations, rendering the medium of exchanges less complicated.

6.—Greater relative stability between the market-value of gold and of human labor.

(*b*) Artificial causes tending to make Bimetallism impossible are:

First.—The adoption of the gold standard, either by law or in practice, or both, by almost all civilized nations, and by many nations whose claims to enter the community are more recent.

Second.—The choice of gold payments by creditors, who necessarily fix the conditions and terms of loans.

These causes are rapidly solving in the negative the problem of Bimetallism, international or otherwise. But it may be well to trace briefly the history of Bimetallism, and to show that it never has been successfully maintained by any country. Almost all nations have tried it, clinging to the old mediæval fallacy, that action by Government can change economic laws; but the result has been always the same; the legal ratio between the two metals could not fix the market-value. When they did coincide, it was only temporarily. Under the operation of Gresham's law, the one or the other metal having a higher market-value than the ratio fixed by law was hoarded or exported, while that of lesser value remained in use. No action by Government could change an economic law.

Not to enter upon the financial systems, or lack of systems, of the Middle Ages, when Government changed not only the ratio between gold and silver, but also the weight and fineness of the coins,—even debasing the coinage by adulteration and clipping, and confusing its value by arbitrary fixation of the price of provisions, labor, etc.,—we find England throughout the eighteenth century still struggling blindly to maintain Bimetallism. The result was inevitable: the more valuable metal disappeared, while the less valuable only remained in circulation; and of the circulating metal, the newly minted pieces were hoarded, while the clipped shillings were made to serve the uses of trade. All sorts of experiments to obviate these difficulties were tried. Edicts were issued forbidding the exportation of gold. The number of shillings to the guinea was fixed at various figures from 26 to 21; but all efforts were unavailing. Bimetallism was a failure; and the currency was in the greatest confusion. Early in the century, Locke and other leading minds began to appreciate the fact that only one metal could usefully form the standard of value; but it was long before this was generally realized. In 1774, the Government took the first step toward the establishment of a single standard, by limiting the right to coin silver on Government account and by making it legal tender up to £25 in specie, and above that by weight. Still the confusion in the currency continued until 1798, when the legal-tender power of silver was restricted. In 1816, England formally adopted the single gold standard.

In 1803, France, which, prior to the Revolution, had been substantially on a silver basis, adopted the silver franc as the standard; coining both gold and silver in unlimited quantities at the ratio of 15½ to 1. From this period until 1875, France made a more successful attempt than any other nation to maintain a Bimetallic system; but even under the most favorable auspices, and during a period when the commercial and legal value of silver and gold varied but little, the experiment was practically a failure. In the earlier part of the century, silver being overvalued, gold practically disappeared from circulation. After the discovery of gold in California and Australia, that metal became overvalued, and silver practically disappeared from circulation.

Germany, having suffered, with England, France, and other countries, from a fluctuating and unreliable currency,—complicated in her case by the numerous political subdivisions of the country,—adopted in 1871 the single gold standard of value; suspending the coinage of silver temporarily in 1873, and permanently in 1875. At about the same time, Holland followed the example of Germany; and in 1879 Austria suspended silver coinage. In 1878, Spain decreed that silver should be coined only on State account. In 1873, the Scandinavian countries adopted the single gold standard. In 1875, the Latin Union suspended the coinage of silver; while Russia and Japan are the latest converts to a single gold standard. Thus, practically, all the more civilized nations of the world are either on a single gold standard basis or, if nominally Bimetallic, have suspended the coinage of silver.

The United States has always been, in theory, upon a Bimetallic basis; in fact however its basis has been Monometallic. Its experience has been similar to that of France and of other nations.

The first coinage act was passed in 1792; and the ratio between silver and gold was fixed at 15 to 1. As this was not the true commercial ratio, gold was exported until, in the early part of the century, it practically disappeared; while the silver in circulation was composed largely of Mexican coin; thus showing the infallibility of Gresham's law. Practically, therefore, the country was on a silver basis, although the business of the country was carried on mainly by paper currency of constantly fluctuating value. Specie payments were suspended in 1814, when there was little metallic money in the country.

The increasing output of the gold-mines of North Carolina and Georgia aroused in the Government a desire to protect the interests engaged in the mining of gold. As a result, the ratio between silver and gold was changed to 16 to 1, while the amount of gold in a dollar was

reduced from 24.75 to 23.22. While previously to that time gold had been relatively more valuable than silver, it now became less valuable; consequently silver gradually disappeared, the coins that remained in circulation being mainly Mexican and South American. The discoveries of gold in California in 1847 had, naturally, a still greater disturbing influence. In 1853, the value of fine silver was reduced in the coinage; and, at the same time, silver was made legal tender to the value of $5. Thus, during the second period of its currency history the nation was practically on a gold basis, just as during the first period the basis had been silver.

The period following the Civil War was rife with changes in the currency systems of various nations. We saw the formation of the Latin Union, and the action of Germany, Spain, Austria, and other countries in changing currency laws in the endeavor to provide a stable basis. The act of 1873, so much discussed, was rather the declaration of an established fact than an innovation. Owing to an enormously increased production and a lessening demand, silver became cheaper; and since 1875 the market-value has fallen with greater and greater rapidity, until to-day it stands at 24d. The causes of the decline are many and various, and interpreted according to the convictions of the reasoner. The greatly increasing output of gold since 1847 had created a greater demand for it, and served perhaps unconsciously to remove from the minds of the people the greatest alleged drawback against it as a single standard, namely, the fear of its scarcity.

As a standard of value it possessed the inherent advantages of indestructibility, compactness, etc., and it had the additional advantage of being found in quantities sufficiently large to meet the requirements of all nations, though not so great as to cause it to lose value relatively to the products of the soil and of human labor. It was being adopted by the nations of Europe, legally or practically, as the sole standard of value; their mints becoming closed to silver.

In the establishment of a gold standard, during this period, Germany required and took vast quantities of the metal, aggregating, in the five years from 1871 to 1876, about $415,000,000; and, instead of buying, she sold silver. The Latin Union suspended the coinage of five-franc pieces. In addition to the suspension of the free coinage of silver by Spain, Austria, the Scandinavian countries, Belgium, Holland, and Italy, we find that India, the great consumer of silver—owing to her great indebtedness to England, decreased her demand and finally, in 1893, closed her mints to the coinage of silver. Thus, of the great

nations, the United States was left alone in its efforts to sustain or rehabilitate silver.

The Bland Bill—originally intended as a free-coinage measure—was passed February 28, 1878, in an amended form, providing for a monthly purchase of silver bullion in amount not less than $2,000,000 and not more than $4,000,000, at the market-value. Fortunately for this country, the surrender of large amounts of National-Bank (currency) notes made a place for the new silver currency, so that the danger and evils of silver coinage when the nations of Europe had adopted by law or in practice the gold standard were not greatly felt. The evil was none the less active; for, in spite of our efforts to sustain its value, the price of silver fell rapidly. From 59 1/4d per ounce in 1873, its price dropped to 52 3/4d in 1878; to 50 3/4d in 1884; to 42 7/8d in 1888; and to 30 1/2d in 1892. To-day its value is 24d. The advocates of silver in the United States being still dissatisfied, another attempt was made to pass a bill for the free coinage of silver; resulting, by compromise, in the passage in 1890 of the so-called Sherman Law. This provided for the purchase by the Government of 4,500,000 ounces of silver monthly, and for the coinage of 2,000,000 ounces until July 1, 1891. After that, bars were to be coined for the redemption of legal-tender Treasury notes.

The logical result was an export of gold, increasing from $34,526,447 in 1888 to $79,775,820 in 1893; while customs duties, formerly payable almost entirely in gold, fell practically to nothing in 1894, gold having been either exported or still more closely hoarded.

At this time, occurred the great crisis which was the inevitable outcome of an attempt to maintain Bimetallism. The divergence between the legal and commercial ratios had become so great that fear was entertained lest the Government, in spite of its vast credit, could not maintain the artificial parity between the two metals. The familiar economic law began its logical operation. Gold more and more rapidly disappeared from circulation until the Government was on the verge of bankruptcy, and required the patriotic action of a syndicate of bankers to avert a national disaster. This accomplishment is unparalleled in the history of finance; and only financiers know the magnitude of the difficulties encountered and the success achieved.

In 1893, the unfortunate Sherman Act was repealed; and, in the same year, the Indian mints were closed to the free coinage of silver. The production of gold was constantly increasing; reaching the vast total of $155,522,000 in 1893 and $200,000,000 in 1895. Owing to its

almost absolute indestructibility, the world has now more gold as a standard of value than it had silver and gold together before 1850.

With reference to the relative stability of gold and silver as measures of value, there are two methods of comparison. On the one hand, that between gold or silver and human labor; and, on the other hand, that between gold or silver and the price of certain products of the soil, notably wheat.

For many years, the strongest argument of partisans of Bimetallism, or of silver, was the corresponding rise or fall of wheat and silver. For a number of years, they have appeared to act more or less in unison, and to fall in value relatively to gold. Thus these partisans maintained that silver was the truer standard of value; gold appreciating while wheat and silver were falling. Recently we have had the most glaring evidence of the fallacy of any such contention. Wheat has risen in value with greater rapidity than silver has fallen; and the divergence between the two within a few months has been greater than during many previous years. The real reason stands out with kindergarten simplicity. The inexorable laws of supply and demand operate with a rapidity and precision that cannot fail to carry conviction. The same causes and the same law will account for the fall in the value of silver from 1873 to the present time; but, for various reasons,—among them the semi-mythical, sacred, and mysterious character ascribed to silver,—these were not generally understood. The stability of the value of silver relatively to wheat—and incidentally to other commodities—is thus completely disproved; while that of gold is established.

With reference to the stability of the relation between the market-value of the two metals and human labor,—which in any case seems the fairer test,—the superiority of gold is manifest. The value between the two has corresponded with remarkable uniformity.

The Bimetallists' contention, that gold has appreciated in value because the price of commodities as measured by the gold standard has to a greater or less degree fallen, makes no allowance for the increased areas and improved methods of production. Assuming that to be the case, wages have appreciated in a still greater degree; for their purchasing power has been largely enhanced, the working-man in all countries thus being the greatest gainer from the maintenance of a single gold standard.

The lessons of history—our own and those of other nations—have taught us, therefore, the impracticability and undesirability of a double

standard; just as they have taught us the greater advantage of a single gold standard. The course of events referred to, by natural and artificial causes, has made it imperative upon us, as upon every other civilized nation, to maintain the single gold standard; any effort at Bimetallism, however admirable in theory, being bound to result in the existence of a single standard of one or the other metal. At present, this would inevitably mean a silver standard by any one nation or even a collection of nations making the attempt to adopt Bimetallism.

That all nations could establish and maintain Bimetallism, is conceivable but improbable: that all should desire to do so, is quite inconceivable. The financial or currency history of each nation has abundantly shown the confusion, uncertainty, and loss attending any attempt at Bimetallism, and, in the end, the practical failure of such attempt.

Natural causes have solved this problem; and, unless there is some remarkable revulsion of natural causes, the solution seems likely to remain undisturbed. W. MORTON GRINNELL.

UNIVERSITIES AND THE HIGHER EDUCATION OF WOMEN.

THE twenty-first day of May, 1897, will be long remembered in the annals of the University of Cambridge, England. The streets and squares presented an unwonted aspect. The quiet grass-plot, bounded by the Senate House, the University Library, and the noble chapel of King's College, usually a type of academic peace, was thronged with a motley crowd of Masters of Arts of all ages and every permissible variety of dress. Outside the railings which enclose it was a seething, shouting mob, flinging flour and *confetti* as if they were in the carnival at Nice. Two of the deep windows of the Senate House had been removed, and replaced by steps, so as to remind one of the Banqueting-room of Whitehall at the execution of Charles I. The galleries were occupied by a shouting crowd, who vociferated praise and blame respectively to the sheep who wandered to the right, and to the goats who turned toward the left.

Outside, the stately front of Caius College was hung with festoons, banners, and inscriptions not complimentary to the advent of the New Woman. Every window was thronged with heads; and each became an embrasure for the launching of harmless projectiles. The house of Macmillans, the well-known publishers, had been hired for the occasion by a syndicate of undergraduates who, from its windows, animated and directed the attack upon the governing body of the University. A hideous object, clad in semi-female attire, riding upon a bicycle, depended in front; and words of warning blazed out in brilliant colors. Staid, fatherly M.A.'s, as they arrived at the Cambridge station, were greeted by their own or other people's sons, who convoyed them to carriages supplied, of course, on the understanding that they should vote on the proper side.

When the victory was won, and the obnoxious grace was defeated by nearly three to one, the roar that went up startled the surrounding villages. At night a bonfire of unprecedented dimensions was lit in the market-place; and every piece of movable timber within the limits of the borough was made to contribute to the triumph. Far into Saturday

morning, the fire blazed; and long did the blackened stones bear testimony to the orgy, as they might have done after the burning of a heretic. Pen, pencil, and camera have recorded the scene forever. All passed off without disaster; the proctors were hustled only by the townsmen; and the police received a handsome reward for their ears that were wisely deaf and their eyes that were judiciously blind.

What was the occasion of all this uproar? The issue was apparently a very simple one; and onlookers at a distance could not understand the passions that were aroused. Since 1881, women students belonging to Newnham or Girton had been admitted to the honor examinations of the University and had received a certificate on satisfying the examiners. Their names had been published in class-lists similar to those of the men. It was proposed to substitute for this certificate the title of B.A.,—the well-known English brand of academical efficiency. This brand was already given by most universities in the United Kingdom: by the Universities of Durham, London, Wales, Aberdeen, Edinburgh, Glasgow, and St. Andrews, by the Victorian University and the Royal University of Ireland. There was no idea of establishing a mixed university, or of admitting women to membership of the senate, or to the government of our academical institutions. The proposal was merely to substitute an intelligible for an unintelligible mark, a sign possessing a commercial value for one which had but little value, except in the eyes of those who had special opportunities for estimating it. Setting justice and expediency aside, and supposing that the proposed step was unwise, why should there be all this fuss and bobbery about making cream tarts without pepper?

Of course, as generally happens in England, the question at issue was not the question in dispute. Most of those who voted against the grace, and all who were evidently opposed to it, considered themselves to be testifying either against the opinion that the education of men and women should be the same, or that the University should be open to both sexes indiscriminately, or against various combinations of these two opinions. Therefore, any consideration of the vote opens up the whole question of the higher education of women in connection with the University; and it is to this question that I now propose to devote myself.

The beginning of action in this matter dates from the early 'seventies, and may indeed be regarded as part of the general movement toward University Extension, that is, to the feeling that the educational activity and influence of the University should be extended beyond its

own immediate sphere of action: on the one side, to classes who are debarred from residing as University students, and, on the other, to the sex whose honor it is supposed to be to sit at home and make wool. It would be tedious to trace the realization of the idea in detail. It passed gradually through the stages which might have been predicted for it. Public classes were established for women, conducted by approved academical teachers. Examinations were held, and certificates granted. Local habitations became an object of desire. What was the best place for them? Should they be halfway between Oxford and Cambridge, or between London and Cambridge? Should they be urban or suburban, a *rus in urbe*, neither a solitude nor a tumult, shrinking from male contact with a modest interval or boldly challenging the protective similarity of a member of our University Federation? Should, also, the mountain go to Mahomet, or Mahomet to the mountain?

At first, the teaching was given in the women's colleges, and is still so given to a large extent. But Mahomet is a busy man; and the mountain can be more easily moved in detachments. First, professors' lectures were open to women; then, lectures in college; and afterward, college lectures; so that now there is scarcely a class-room in Cambridge in which both sexes do not sit side by side. But how can proficiency be gauged unless both classes of students attend the same examinations? First, public examiners looked over papers and reported upon them from motives of courtesy and fees; then, as we have said, in 1881, the public examinations of the University were open to women of right; and so they have remained.

Then arose the question as to whether the education of women should be precisely the same as that of men, or different. This caused the divergence of Girton and Newnham. Girton, strong in the missionary spirit, maintained that if her students took triposes they should be subject to the same conditions as their male competitors: residence, little-go, and all; little-go implying the learning of Greek. Newnham, which disapproved of compulsory Greek even for men, substituted the "Locals" for the "Previous," and thus turned the Greek barrier. It cannot, I think, be said by an impartial observer that the intellectual output of Newnham has been inferior to that of Girton; and the self-devotion of the latter college has not, as yet, convinced a stiff-necked senate. Thus, in little more than twenty years has grown up a group of new colleges which might almost be called a new university: Girton, upon the historic heights of Bunker's Hill, with its lawn, orchard, and shrubberies, ever extending its thin red line, to stand between Mading-

ley Hill and the beacon-tower of Ely, as Eton stands between the terrace of Windsor and the dome of Penn; and Newnham, with its triple rank of halls, embosomed in trees, a liberty and sanctuary in itself.

We must not forget that the enterprise was, in its inception, missionary. The higher education of women was, in 1870, very defective in England,—far worse than in America. Accomplishments held the field; music and drawing were universally taught; languages more for speaking than for writing or for literature. There is some evidence that the women of 1800 had a sterner and a robuster training. Latin, Greek, and the higher mathematics were certainly not a part of women's sphere. Matters were so bad that there was no time to consider what was the ideally best thing to do. If a woman was to learn anything thoroughly, she could only learn with men, because in their places of education alone was thoroughness understood. Again, a woman could overcome the deep-rooted conviction of inferiority only by meeting men and beating them by their own academical standard. A female first-class was a wonder, a female senior wrangler a greater wonder, a female senior classic a greater wonder still. These successes were, perhaps, not desirable of themselves; but they were necessary in the progress of things.

We might indeed argue that success in examination is no irrefragable proof of ability in men. A senior wrangler may have gained a Pyrrhic victory, and muddled, for the remainder of his life, such mind as he originally possessed. But the world does not believe this. It has faith in the hall-mark, and does not doubt the capacity which compassed it, unless it happens to be enclosed in a dusky skin. A high place in the Indian Civil Service is grudged to the unstable precocity of a Hindoo; but a woman is not a rival and is not suspected. There may be, however, a suspicion in the mind of a University examiner. There may be work which deserves marks and work which compels admiration; and there may be mistakes which have more merit than the accuracy of success. I cannot, myself, pretend to a varied experience; but I have never seen a woman's work which appeared to me equal to a man's. The answers to historical questions are difficult to gauge, because if the facts are known, and are written down accurately, with careful arrangement and some brilliancy of statement, it is impossible to refuse the palm. But in the essays there is a fundamental difference. A woman is receptive, reproductive, rarely combative, hardly ever original.

The best attitude for a learner who has passed the age of boyhood

is distrust of his authority, mingled perhaps with contempt. Anyone can note, abstract, arrange under heads, remember, revise, and reproduce. Hours spent, as many men spend them, in transferring knowledge from a printed page to a note-book are scarcely on a level with the toil of a bricklayer. To discard the note-book, or to use it as a servant, to arraign every fact and, still more, every judgment before the bar of your own intelligence, to make it part of your mental furniture, to meditate, to argue, to condemn, even with a paradox,—such is the training of a man of spirit. In this way Oxford trains many, and Cambridge a few. But women are not endowed with the rebelliousness, or even with the idleness of mind, which is a condition precedent to this effect. "A man," Herbert Spencer said to me, many years ago, "can do anything if he is only rebellious enough. The first thing is to be rebellious." A rebellious woman might be a bad wife, but she would be a better scholar.

It will be seen from these remarks that after twenty years' experience, and more, I am not convinced of the mental equality of men and women; neither that they can produce the same results, nor that the same training is good for them. If our movements at Cambridge and Oxford are to be favorably judged, they must be considered not as ideal schemes whose success gives them a claim to further fostering, but as experiments which have done immense good, but which owe their form to the necessities of the time, to the absence of female education on the one hand, and to the importance of showing that it was possible on the other.

I have endeavored to show that the advantages and disadvantages of the education of women at a man's university are only indirectly exhibited by our present experiment; but the experience we have gained throws much light upon the question in the abstract. The advantages are obvious, at least so far as they affect the women. At the University there can be no doubt about the standard either of the instruction or of the tests applied to it. The best classical scholarship, the best mathematics, the best science, the best psychology, the best history, the best modern language, are at the disposal of both sexes; whereas, in a women's university, and still more in a private institution, there would be less security that the proper standard is attained. Women also resident in a male university can hardly escape the contagious influence of devotion to knowledge for its own sake, and of healthy rivalry in intellectual pursuits. There is also a consideration, urged not long ago in a lecture by Mrs. Henry Sidgwick, which is not so

obvious. Our great universities contain students of two classes, which would not, as a rule, include women: those who are preparing for the church, for the law, and for professions other than teaching and medicine; and those who come to the University for social reasons, forming, perhaps, as many as one-third of the whole. For these students, especially for the first, a wide and varied intellectual curriculum has to be provided; and it has been found, by experience, that every addition to the subjects of academical study has increased the number of our students. This wealth of divergent interest would not be easily found in a university composed entirely of women; and they would be debarred, in Mrs. Sidgwick's words, "from the fulness of academic life obtained by a large variety of departments all working vigorously and energetically together." Mrs. Sidgwick, therefore, is perhaps justified in saying, from her own point of view, that, while she would gratefully accept the offer of a philanthropist to endow a university for women only, with a full equipment of libraries, museums, and laboratories, and adequate stipends for teachers and researchers, she would advise him rather to expend the money on Cambridge or Oxford, or other existing universities.

There would also be some advantage in the fact of the sisters, wives, and mothers of men having identically the same education as the men themselves. A sister may stimulate her brother to exertion, or may at least help and encourage him, if she is engaged in the same studies. Tradition says that the sister of Lord Salisbury, the mother of a noble race, shared all her brother's work, and was a better Greek and Latin scholar than himself. The marriage of Cambridge teachers with women interested in the same objects has been sufficiently common to show us that such unions are happy,—perhaps indeed the fountain of a rare and ideal happiness. Mrs. Sidgwick admits that there are two ideals of married companionship; some persons preferring similarity of tastes and occupations, and others contrasts; some especially desiring intellectual sympathy and comradeship, and others the repose of complete change of ideas in domestic converse. We may hope that the first of these ideals may gradually prevail over the other, and that girls educated "on the old plan of a little music and drawing and a smattering of French" may be less sought after in the future than they have been in the past.

Nor can we to-day neglect the question of athletics. It is said that girls who cannot play hockey and lawn-tennis, not to mention other games, are at a discount in country houses, and are not likely to find

good husbands. Games are certainly more likely to flourish in a mixed than in a women's university. Still stronger is the case with regard to mothers. Most schoolmasters would acknowledge the inestimable benefit of a boy's mother being able to understand and criticise his more serious studies. Fathers are proverbially easy-going, and do not interfere unless the purse is too lavishly drawn upon. But women are more practical; and a mother who met her son's excuses for idleness with the rejoinder, "I know all about it, my boy. I have been through it myself," would occupy an impregnable position.

The disadvantages of a joint education, as they concern women and men, are of two kinds. We have shown, with regard to the first, that what is the ideal education for a woman has never been worked out; and the proposition that it should be identical with a man's is a mere assumption. The contention that it should be different was a strong point with the opponent of the Cambridge grace. The most authoritative statement on this side came from Dr. Westcott, Bishop of Durham, in a letter to Bishop Selwyn. He says that no one can be more anxious than himself that the highest possible education should be placed within the reach of women, but that such education must be adapted, both from its general scope and in its details, to the disciplining and developing of their peculiar endowments.

> "A perfect woman is distinct in type from a perfect man. It will, I suppose, be admitted that women are constitutionally different from men, that they have peculiar gifts, and that the moral and intellectual powers which the two sexes have in common are, for the most part, combined in them in different proportions and tend to form different characters. It will also be admitted that education is designed to train the whole person and not any one part, and to give as natural and complete and harmonious an expression as possible to the sum of the student's powers. If, then, the Cambridge honor course has been carefully designed to meet the special powers and needs of men, it must so far fail to meet the special powers and needs of women. If a woman is forced to submit to conditions which have been laid down, not only without consideration of her requirements, but in view of other requirements, she must suffer. I gratefully recognize the intellectual gain which women have found in the Cambridge course; but I believe that it has been secured at a high cost, and not without loss."

It would probably, therefore, be a misfortune if the education of women was fixed for the future on the same lines as that of men by the accident of temporary coincidence, just as it has been a misfortune that our Grammar-school education was forced into the groove of humanities by the coincidence of the Renascence with the Reformation.

Among the minor disadvantages, those which are most obvious, and

which were perhaps most feared at the outset, have not been found to exist. There is no inconvenience in the mere fact of men and women attending the same lecture-rooms, or in their using the same walks or the same chapels, or in their being taught privately in their colleges by youthful lecturers. In fact, to the women, the minor disadvantages have been nothing or next to nothing. We cannot say the same of the men. Lecture-rooms have undoubtedly been inconveniently crowded by the presence of women. At Lord Acton's inaugural lecture a part of the room was reserved for women. But that was interpreted as being reserved against men. The fair sex crowded the remainder of the room; and even the most distinguished professors could scarcely find a place. At the ordinary lectures of the same eminent teacher nearly all the best places were occupied by women; and the most serious male students had to take back seats. I should say, also, that on more than one occasion within the last twenty years, lectures of a lower standard have been bolstered up by the presence of women. If the male audience had been left to itself, the lectures would either have come to an end or the lecturer would have been obliged to alter his tone or raise his standard.

It is obvious that in certain subjects of a scientific character inconvenience and embarrassment might be the natural result of lecturing to a mixed audience of men and women. A medical lecturer writes to the Cambridge Syndicate:—

> "So far as my limited experience goes, no advantages and some decided inconveniences have resulted from the admission of women students. Though not advisable, subject-matter and method have practically been modified owing to their presence."

A teacher of a more balanced mind reports that

> "the advantages are the presence of perfectly regular and enthusiastic students who are anxious to learn all they can. The disadvantages are that the men do not ask questions as freely in the presence of women; at least, so it seemed to me."

One frankly states that

> "in some lectures the presence of women has been an advantage, by increasing the small number who attend."

Another, who lectures in classics, testifies:—

> "The form of my lectures has sometimes, though not often, to be modified. This is an inconvenience. I know of no advantage."

Besides these more obvious drawbacks there are others of a more subtle character. A lecturer holds classes to which men and women are admitted, and in which papers are written and freely criticised before the class. It is probable that at first, more papers will be written by women than by men; and if this be the case, it will be difficult to get the men to write papers at all. Also, if most of the lecturer's time be taken up in criticising the women's papers, men will be reluctant to attend the class at all. Indeed it may be said, generally, that where the teaching is of a close and intimate character, where there is any questioning, or indeed any lecturing in a casual and informal manner, the presence of a mixed class is a decided hindrance. In a set, formal lecture the presence of women may possibly be a help, provided they do not occupy the best places and keep out the men; but serious and searching instruction is made more difficult by their participation in it.

I have said nothing about the conversion of Oxford and Cambridge into mixed universities, because although this is regarded as a desirable end by some prominent and responsible authorities, no attempt has been made, so far as I am aware, to work it out in detail or to show how the many difficulties attending it are to be surmounted. Putting this aside, we may say, in conclusion, that the establishment of Newnham, Girton, and similar institutions at our universities has been a decided gain for the higher education of women, and that it could not have been assisted so much in any other manner. But these colleges, while doing a missionary work, do not represent the best form in which female education can be given. This can be attained only by a system of education confined to women alone. Even this moderate result has not been attained without some loss to the higher education of men,—a loss which may be endured so long as it is confined to its present dimensions, but which would become intolerable if allowed to assume larger proportions.

OSCAR BROWNING.

NAVAL WARFARE: PRESENT AND FUTURE.

ONE of the most remarkable features of the present decade is the interest almost universally taken in things that pertain to war on the sea. Ten years ago, even in England, where the navy has a peculiarly vital importance, comparatively few people had more than the barest acquaintance with the units of their fleet; in France, the next naval Power, the warships were then scarcely known to the civilian; in the United States, memories of naval actions in the War lingered feebly; but nowhere was there any equivalent to the all-pervading naval mania of the present day. It is not my part here to consider the causes that have led to this interest: it suffices that it exists. And the sum total of it all culminates in the questions: "What will a real naval fight be like? What would it be like now? What will it be to-morrow?"

In the ironclad era, we have had naval actions enough to supply material for a long and comparatively satisfactory history of them. I use the word "comparatively" because none of the actions in which the modern ship has participated has been on a par with the gigantic land-struggles that the new age has seen; besides, minor details, such as the exact amount of armor carried by a ship, have—perhaps of necessity—obscured the main issues, historically. When the important sea-fight of to-day or to-morrow comes to be fought, a pound or two more of projectiles thrown in a minute, an inch or so more or less armor, a fraction of a knot difference in speed, will not decide the action. There are greater issues than these; and it may well be that we shall find one ship pretty much like another when theory is overset for practice.

From every naval battle of this age, the first-class vessel has been conspicuously absent; consequently, viewed in the light of experiments, the actions have been more or less futile—futile to the thinking student. The Yalu came as a terrible revelation and "wet blanket" to the theories of many enthusiasts. Previously to the Yalu fight, the men who batten on proving-ground results and statistics had shown that the ironclad was played out: the Yalu rehabilitated the armorclad, and thrust the cruiser into the background. But, beyond this, it

taught nothing: we are still blindly groping when we dream of the naval warfare of to-day or to-morrow. All we actually know is, that the penetrative powers which we assign to our guns are entirely mythical when tested in actual practice; and that we have no reliable data, by which we can correct, and make a proportionate scale.

We know that the bigger the gun, the less likely it is to hit the target; but, again, our data only suggest that the best possible lies in a mean,—a mean that is left to individual judgment. A year ago, the 12-inch gun embodied this mean; already the French have discarded it for a heavier weapon; and we may look to see other nations following suit.

The ram, tested by results, has proved itself more likely to be fatal by accident than by design. From an absolute belief in it, opinion gradually changed till it was spoken of as an impossible weapon; and the French, previously so partial to enormous spurs, so far discarded their old ideals as to build their battleship "Brennus" without any ram at all. Yet, at the same time, the United States were busy over the "Katahdin," a "ram" pure and simple: she is now in the Navy. France is building ram-bowed ships once more; and the new second-class British cruiser "Arrogant" and her sisters are short, double-rudder ed ships, specially designed for use as rams. Where then lies the truth about the ram?

The torpedo again forms debatable land. With the torpedo-vessel I shall deal farther on: here we need but consider the ship's torpedo-tube. The torpedo is a destructive weapon; but it cannot be used at a range much exceeding a quarter of a mile. At that distance, the big gun can hardly miss; and its devastation would be quite as appalling as any that the less-accurate torpedo could effect. Moreover, the slow speed of a torpedo—slow in comparison with a projectile—infinitely increases the risk of damaging a friend instead of the enemy aimed at. Also, every part of the ironclad not heavily armored being searched by quick-fire shell, the torpedoes are likely to be exploded in their tubes long ere they can be employed. So much is this recognized that the under-water tube alone is being adopted for new designs; while the above-water tube is condemned entirely. But submerged tubes are difficult to use. In the British navy, certainly, the deflection of the torpedo caused by the ship's movement has been reduced to a very few degrees; but perfection is still some distance off. With other nations, the tube being of cruder design, the deflection is so enormous that a hit at any appreciable range must be almost a matter of pure chance.

Let us briefly consider what the modern torpedo, fired from large ships, has actually done.

In the Chino-Japanese war the submerged tube played no part, and the above-water tube was employed without results. Taking the battles of the war in their order, we find that at Asan, the "Tche-Yuen," approaching the Japanese squadron under a flag of truce, fired a torpedo which missed. Later, when chased and fired at by the "Yoshino," six loaded torpedoes lay on the Chinaman's deck; but none was hit.

In the same battle, the gunboat "Kwang-ki" attempted to approach within torpedo range of the enemy, but, ere she could do so, was so badly damaged by gun-fire that she had to be beached. During this cannonade, a tube with a torpedo in it was hit by a projectile, which destroyed the discharging mechanism but did not explode the torpedo. Later, a shell from the "Naniwa," hit the loaded after torpedo-tube; and the torpedo, exploding, blew the gunboat's stern to atoms.

In the affair of the "Kowshing," the Japanese "Naniwa" is said to have fired a torpedo; but this has been denied. In any case the explosion which preceded the sinking of the transport seems to have been due to a 10-inch shell; and there is nothing to show that any torpedo hit the target.

At the Yalu, the Chinamen, anxious possibly to be rid of them, discharged all their torpedoes at a ridiculously long range. The water was "full of torpedoes" floating about: but no ship came foul of them; and after the fight fishermen picked them up and towed them to Port Arthur, where they were repurchased by Admiral Ting at one hundred dollars a torpedo.

Therefore, so far, the ship's torpedo has nothing to show for itself; the successes obtained against the "Aquidaban" and "Blanco Encolada" being those of gunboats *used as torpedo-boats*, and in both cases in night attacks in harbor.

From the torpedo we return to the ram. There is but one modern instance of an attempt to use this—that of the "Chih Yuen" at the Yalu. This attempt was rendered abortive by the gun, a big shell at close range sinking the cruiser before she could reach the "Yoshino." But—and it is a "but" worthy of consideration—this fatal shell did not come from the "Yoshino"; nor is there proof that it came from the "Takachiko," which was also firing at the Chinaman. Two other solutions are equally probable: First, that a stray big shell from one of the "Itsikushima" class fired the shot; and, second, that it was fired by a Chinese ironclad,—the cruiser thus being sunk by her friends.

After the battle, one of the foreign officers of the big Chinese ironclads explained in minute detail how a Japanese cruiser had passed across his bows at close range. On this ship one of the big 12-inch guns had been carefully laid and fired. The shell hit her on the waterline forward, burst, and sank her. When, later, it became known that no Japanese vessel had been lost, this officer was looked upon as a marvellously able liar. But when we reflect that every detail of the story corresponded with the going down of the "Chih Yuen" as described by both sides; when we add to this the fact that the Chinese fleet was in great confusion, and the "Chih Yuen"—which had left the line without orders—steamed in a course identical with some of the Japanese vessels, we may well conceive that she was taken for an enemy as she loomed out of the smoke haze. And this adds to the dangers of using the ram yet another and the most terrible risk. A ram attack in a fleet action, to be successful, must be in the nature of an isolated attempt; and for the stress of war the one clear maxim is, "They that be not with us are against us."

To follow the matter to its logical conclusion: The vital importance of keeping a fleet in hand is fully recognized: it is the *ultima Thule* of all schemes of attack. But its logical corollary would seem to be more important still; viz., that, given an ability to keep your own fleet in hand and to produce confusion in the enemy's line, you have only to lie in the comparative safety of long range and allow the foe to sink himself. Smokeless powder will interfere, to some degree, with this tactic,—a tactic that would certainly seem to have presented itself to the mind of Admiral Ito at Yalu,—but the absence of heavy smoke billows will not entirely nullify it. Over and over again it has been proved that even in peace manœuvres gunners incline to fire at the nearest object without too much questioning as to whether it be friend or foe: in the thunderous moments of actual battle this tendency must increase a thousandfold.

At present the gun holds the field as the weapon *par excellence*. It is tolerably sure to hit the target at ranges under one thousand yards and it will hit occasionally up to four thousand. Much beyond this latter distance the target offered by a ship is a speck so tiny that all the odds are against a hit: a mile and a half is, perhaps, the greatest range at which any serious firing would be even attempted.

Near or far, however, it needs no gift of prophecy to foresee some of the things that will happen under present-day conditions. Increased range will merely prolong the early stages of an action. Sooner or

later all unarmored portions of the battleships will be blown to pieces; wreckage of top-hamper will gradually block the guns; shot-holes in the funnels will reduce the speed and make the engine-room an *Inferno* of heat. Two hundred degrees Fahrenheit may be looked for there; and it will have to be endured as best it may. The water-line is little likely to be hit: but rents just above it will be plentiful enough where there is no armor; and if there should be any sea on, the tons of water thus shipped will seriously affect a ship's speed, if indeed they do not capsize her. The electric lights will break down; there will be nothing but oil-lamps to pierce the choking blackness. Fires may be looked for here and there. It is the opinion of many naval officers that—at any rate in a duel—no captain will be able to stand the strain of this for long, that by mutual consent the ships will steam into close range, anxious to finish the matter without further delay. What will happen in such a case, with the ships so near that no gun can miss, so near that no armor can withstand the fearful impact, the imagination cannot really grasp. The devastation such an engagement must produce is too tremendous for a fanciful conception. It has one bright side: its endurance must be very short. There are those who think that upon one side or the other, panic will seize the crews, that men will spring overboard rather than endure the strain. It may be so: it is a question of discipline, and of how far discipline will hold.

To return to the long-range fight. Here, great as the apparent destruction may be, the actual damage will be comparatively slight. No sane captain will attempt to keep his men at the light, unprotected guns: these will be deserted, and damage done to them will not hurt a ship's vitals. The men behind armor will be safe enough, bruised and blackened maybe; but the guns will not be silenced.[1] The charges of modern shells are mostly high explosives; these will be burst outside by even quite thin armor: where they enter and explode, the damage will be intensely local. Hence we may look to see most of the ships comparatively sound, even after a long-range conflict of considerable duration.

It takes a great deal to put an ironclad out of action; nor does there seem any valid reason to believe in the lurid word-pictures of "the wounded mastodons rolling in their death agonies," of which now and again we hear so much. Even in the old three-decker days, when ships fought gun-muzzle to gun-muzzle; when, if there were no shells, there

[1] At Yalu two guns only in the whole Japanese fleet were totally disabled; while in the surviving Chinese vessels three only were thus put out of action.

were splinters equally terrible; when the motive power was entirely exposed; when the gunners had no protection whatever,—even then, it was the exception, rather than the rule, for ships to be totally disabled; nor were the losses in personnel very often sufficient to put a vessel out of action. At the battle of Cape St. Vincent, in 1797,—which in its tactics nearly resembled a modern ironclad fight,—the British had but one battleship totally disabled; and the defeated Spaniards lost but four. It is true that at the Yalu which, in that the victors steered for a gap in the enemy's line, tactically bears some resemblance to St. Vincent, the Japanese had three ships disabled, while the Chinese lost five. This, taking into account the smaller number of combatants, is about double the proportion of a fight of a hundred years ago; but the Yalu was an altogether exceptional battle. Its early tactics—which led to the disablement of two Japanese ships,[1] "Hi Yei" and "Agaki"—are not likely to be repeated; and no important naval Power would include in its fighting-line unarmored ships, such as many of these combatants were. Only three ships which can really be called armorclads took part in the fight,—the "Ting Yuen" and "Chen Yen" on the Chinese side, and the "Fusoo" on the Japanese. The two former were knocked about: but they did not suffer any vital hurt; nor were many men lost in them; yet they were exposed to the fire of guns of sixty-six[2] tons and downwards for five hours.

The real danger of a modern sea-fight at long range lies in the ammunition question. After such a battle, ships, perhaps still quite unsubdued, will be left with empty magazines: the biggest ironclad cannot carry enough for more than a few hours' vigorous cannonade. An ironclad like the "Indiana" is very likely to feel her weakness here. It is now being recognized that ships of this class are, like many others, over-gunned. With a reduced armament, and consequently greater carrying capacity for ammunition, they would be better ships. In comparison with the Japanese "Fuji," a vessel of over 2,000 tons more displacement, the "Indiana" is, so far as paper showing goes, the better ship in gun-power, and possibly better in regard to the protection of those guns. But the "Fuji" has a better ammunition supply; and in a duel between these two at long range the United States warship would be left comparatively intact, possibly, but with empty magazines, against the still fairly full ones of the Japanese ship.

[1] The Japanese passed right across the enemy's front, in their desire to cut off two lesser Chinese vessels. In so doing they exposed their own rear ships.

[2] In theory, the Canet gun was then the most powerful in the world.

This then is *the* problem of modern naval warfare: Will ships fight at long range, hurting each other but little, firing till all the ammunition is expended, or will they get to close quarters and mutually annihilate each other, meeting gun with gun, torpedo with torpedo, ram with ram? It is hard to see how, in either case, victory is to be obtained.

In a fleet action, as already noted, the side which gets in most disorder appears marked out to be the loser; but in a duel between battleships this element is absent. The exact amount of ammunition carried in a vessel in war time is more or less an unknown quantity; but, given two ships otherwise equal, we may take it that the larger carries most rounds per gun. Theoretically, A can fight at long range till the enemy, B, has emptied his magazines, then steam in and win. But B, knowing this, will endeavor to husband ammunition—none too easy a task. Speeds being about equal, neither—unless some "lucky shot" make it feasible—will be able to close with the other against the other's wish; and the desire for close action on the one side is almost bound to correspond to the reverse on the other. How is such an action to end? A lucky shot—pure chance—would seem to be the only answer!

There exist many beautiful theories about "beating down an enemy's fire." But, fighting at a range at which at least 75 per cent of the projectiles miss altogether, how is this to be done? Again we are thrown upon the "lucky-shot" answer. The captains of the first two modern battleships that enter upon a duel will have a pretty problem to work out. If in narrow seas, the fight may be like a game of draughts; but if there should be plenty of sea-room, then we have to face the analogy of a game of draughts upon an almost limitless board.

On the strategy of the next big naval war it is not well to speculate too seriously. There are those who, following in the steps of Captain Mahan, endeavor to read the future by the light of the past. But, without adhering to the *Jeune École*, one may ask whether the gallant officer reads the past aright, whether the fascination of the historical side does not lead to some overlooking or warping of the practical? Has a sense of strategy been the all-powerful influence at work in past campaigns?

It is easy so to piece things together now; but in history, as I read it, strategy so often seems to have been, at the best, only on very broad and general lines. A vague desire to get at the enemy, and beat him, without much thought of subsequent issues, seems rather to have been the dominant idea. The strategical advantages would seem to have

been first noted and made use of *after* the victory; and the victory itself has so often been due to one side thinking that it had had enough before that idea occurred to the other. Frankly, I consider that all these pretty theories of carefully worked-out strategy need far more proof than has yet been adduced.

To sum up: The naval battle of to-morrow may be a terrible thing; but there is reason to believe that it will be far less dreadful than people are so fond of imagining. Especially is there reason to think that in ironclads it will not be very sanguinary. Science has made close-quarter fighting tantamount to annihilation; but it has only very partially solved the problem how to hit at long range—except at target practice. Quick-firers of 4- to 6-inch calibre, not needing to be relaid for every discharge, do indeed "sight themselves," as the saying goes; but these cannot reach a ship's vitals.

There is "the day after to-morrow" to consider; when the dynamite gun and submarine boat shall have been perfected. But the former is always bound to be limited in its range and exposed to the fire of guns that can attack it long ere it can reach them in reply; and the latter, even supposing the apparently hopeless problem of how to see under water to be solved, is hampered by innumerable other difficulties. It must come to the surface to see the enemy; and it can do so only in comparatively smooth water. For its own safety, it must move at a low speed; and a swifter enemy cannot have much cause to dread it under any conditions that as yet appear possible. It is dangerous to dogmatize as to the future; but the submarine boat does not at present hold anything but a limited future value. So much secrecy is observed about these craft that one cannot discuss their evolution freely; but they do not appear to have greatly progressed beyond the Confederate "Davids"; and these, despite the sinking of the "Housatonic" were, on the whole, far from successful. For such service very brave men are needed; and, since the supply is limited, in no navy are these to be lightly wasted. The submarine torpedo-boat, which sooner or later means death to its crew, does not appear to offer any promise of results worth the sacrifice. Rather, the future of special torpedo attack seems to lie with the boat swiftly moving on the surface; and this we must now examine.

Practical torpedo warfare of to-day reached its apotheosis at Wei-hai-wei; and the results were not eminently satisfactory. The Chinese were disheartened; their ships did not carry the right sort of guns to repel torpedo-boats; their defensive preparations were very poor; and

the fleet was in an easily assailable position. Twice the Japanese boats were discovered and had to retreat: twice they made attacks. In these attacks, two boats were sunk and several disabled; and only a small percentage of torpedoes hit the target. One ironclad, "Lai Yuen," was struck and capsized; an old nondescript vessel, "Wei Yuen" was sunk; the battleship, "Ting Yuen," twice struck, was compelled to run ashore; and the more modern, Elswick-built cruiser, "Ching Yuen," was hit, but only very partially disabled.[1] It was a result by no means equal to what had been prophesied.

Against this we must reckon the physical difficulties that the Japanese encountered from the weather,—difficulties that have, perhaps, hardly received a due meed of appreciation. Some of their torpedoes could not be fired because of the ice which clogged the tubes. Yet the Chinese fire was so very wild that this disadvantage was more than counterbalanced, if the actions are viewed purely in the light of experiments as to the pros and cons of torpedo-boat attack. It is the old, old story, that the things which are perfect in theory may prove to be something entirely different under the strain of actual war.

This is a truism, as also is the response that the excitement of battle is the cause. For torpedo-boat warfare this last is somewhat inaccurate, since at least two more potent forces are at work. I have seen and participated in a good many sham torpedo attacks, and have invariably noticed that it is impossible to judge the distance of the enemy. This is a factor common to peace and war, and so deserves attention. The actual firing of a torpedo is a comparatively simple matter; the principal part of the business is done in harbor beforehand; and the boat is steered so that the tube bears on the target. So soon as this is in line with the sights of the director, a trigger is pressed, or a lanyard pulled, and the torpedo leaps out. But it is necessary to know the distance; and this can be only very roughly guessed. Even in a peace attack there is room and to spare for excitement; but this is usually absent: service in torpedo-boats soon gives a man phlegm.

The second and more important point can occur only under actual fire. Curiously enough, saving a few torpedo-officers, no one has yet considered the thing that, before all others, may cause the torpedoist to fire too soon. It is the thought, "Suppose I am killed before I get my chance?"

A torpedo-tube is not a gun. A gun when laid, from the roll of

[1] She steamed about the harbor firing her guns on the following day. Eventually she was hit in the bow by a big shell from a land-fort and sank.

the ship, may be on and off the target; but there is a far longer period of time during which it can be fired with a reasonable prospect of success than in the case of a torpedo. It can, too, be easily relaid; a dead Number One can be quickly replaced. There is no relaying a torpedo-tube during an attack,—no boat attacking a modern, well-armed ironclad is likely to live long enough for a second attempt,—and the firer of the torpedo is probably alone on the deck. If he be killed or disabled, the chance of firing the torpedo is lost. At distances under three hundred yards a torpedo is fairly certain to hit: at five hundred yards there is very much chance in the matter. The selection of the distance might depend upon the officer in command of the boat; while the gunner, or a sub-lieutenant, attended to the tubes; but there are few skippers who would not, in actual practice, instead of being in the conning-tower, be on deck steering the boat themselves, with the intention of running to the tube and discharging the torpedo at the opportune instant. In supreme moments having such issues as a torpedo attack, a man would trust only himself.

The average torpedo-man expects to get killed when he attacks: with him the question is, "Shall I be killed before I can fire, or after?" The more anxious he may be not to die without having done something, the more likely he is to fire at too great a range.

To return to the torpedo attack itself. There is reason to believe that sham torpedo-boat attacks afford a tolerably fair index to what may be expected in war. All over the world two minutes is the usual time allowed to a torpedo-boat under fire before she is considered out of action. Now though it is safe to assert that it is extremely improbable that a boat would be actually destroyed in so short a time, she may well be expected to receive hits that would materially reduce speed before being fired at for two minutes; and the longer time consequently taken to reach torpedoing distance may be taken as a set-off against wildness in a ship's fire. Other pros and cons are that hard as it is for a boat to find a fleet in peace manœuvres, it will—as a general rule—be infinitely harder in war time. The nerve tension consequent upon an actual attempt should also count something against the boat, —but less than is generally assumed. I do not think that disciplined men under fire from a ship would lose their heads. An untrained crew certainly would; but a torpedo-boat manned with the raw material would, for other reasons, be so absolutely useless that no ship would have cause to dread it.

We may, therefore, take it that the percentage of losses sustained

by fleets in peace manœuvres represents the percentage of losses that may be looked for in war. This does not work out at a higher figure than one ship in fifteen, and is arrived at from English and French manœuvres during the last few years. Since all doubtful cases are counted in favor of the boat, this is possibly an excessive estimate rather than otherwise.

In the future, the general adoption of the 12-pounder gun with its 3-inch shell will confer a heavy advantage on the big ship; but the real point against the boat is that she is too slow. A twenty-knot boat, out at sea, is not able to steam so fast as a fifteen-knot battleship: in a sea that does not affect the latter, the former may find her speed almost halved. Nearly all the torpedo-boats in existence are, from this cause, practically obsolete.

From the torpedo-boat we come to its special antidote, the thirty-knot "destroyer," than which no vessel has more fired the popular imagination; nor are there wanting, even in naval circles, those who assert that she is the warship of to-morrow. Admiral Colomb, who, next to Captain Mahan, is the best-known authority upon matters of naval tactics and strategy, recently attempted to prove this in a lecture at the English United Service Institute; and, on the face of it, made out a very good case for his argument. He did not, however, pay much attention to the speed question noted above. Swifter than the torpedo-boat, the destroyer certainly is; but an extra four knots is not sufficient to cause a revolution in warfare. A destroyer—assuming smooth water—travels at about one thousand yards a minute: a torpedo-boat under the same conditions will cover, say, eight hundred. Two thousand five hundred to two thousand yards may be put down as the average distance at which an attacking torpedo-vessel is practically certain to be sighted: the destroyer thus gains twenty-four seconds over the boat. In choppy water, the destroyer rapidly loses speed, though not quite so quickly as the boat; and her gain in such weather may be put at half a minute. This is a good deal; but it is met, and perhaps nullified, by the increased advantage given to the ship by the 12-pounder gun in place of the lighter guns previously in use. The above calculation is made on the assumption that the ship is stationary: if in motion, and the attack even from ahead, the time is not likely to be materially reduced, because the ship can turn and present her bow; thus forcing the attack to make a detour. Altogether, there is little reason to expect any alteration in the results of to-morrow from those of to-day, unless the "zone" system of fire breaks down, and it should

prove even more difficult to hit a rapidly moving object than has been anticipated. Six 12-pounder guns only, firing at a torpedo-craft, would discharge in two minutes at least one hundred and twenty shell,—about two hundred is what, in theory, they could fire,—and a single shell may stop the attack. It is hard to believe that all these shell could miss, especially as under the "zone" system each gun has a special space of water assigned to it.

An attack by a large number of torpedo-craft does not offer a much greater chance of success. There is much risk of collision, much probability that the projectile which missed one boat will hit another. Now and then a boat is bound to get home; and the moral result of this will have effects of far more value than the merely physical: yet both to-day and to-morrow, so far as we can judge, the chances will be against the torpedo-craft.

This is a brief and necessarily sketchy view of the present and future position of naval warfare. It has been considered almost entirely as regards the *matériel*. On *personnel*, which is equally important, one might easily write as much again. It is possible now only to say that every step taken in invention thrusts the brave but untrained sailor more and more into the background; that, in addition to a dauntless courage, the ideal seaman of the future must possess more scientific skill than is needed in any other walk in life, and an absolute immunity from nerves.

FRED. T. JANE.

PAUL VERLAINE.

" Écoutez la chanson bien douce
Qui ne pleure que pour vous plaire."

In one of the Latin-Quarter cafés, filled with smoke, several young people are sitting. They are talking about art with stormy enthusiasm and nervous excitement. From time to time a word of contempt or biting sarcasm about the Philistines and the hated *mufles* is heard. They are young artists and poets, "les autres de demain," who, disregarding ironic laughter and bitter criticism, are walking in a new path, —some with talent, if not success. Those who are lacking in strength try to cast in new forms the essence of their hearts and brains; but the results of their efforts are ridiculous and caricatural.

Among these tumultuous youths, is a shabbily dressed young man. He has a peculiar, high, and round forehead, and deep-set, greenish eyes. On his mouth, covered with a small mustache, a sarcastic smile wanders. The joyful Bohemians turn towards him, singing a song with the refrain,

" Chantons, chantons, comme Verlaine,
En avant !
Nous avons du talent."

This negligent cynic, with deformed skull, is Paul Verlaine, beloved and admired by lovers of poetry; the author of many peculiar, refined, melodious poems, in which tenderest tones of longing, pure love, as well as hymns of mystico-religious ecstasies, mingle with loud accords of lascivious desires. He is the poet, always beloved of the muses; in everything that he sang, mindful of artistic beauty; famous in the literary world; almost unknown to the masses. He is the poet whom they proclaimed the most decadent,—the first among the Symbolists.

The poet lived like a Bohemian: his life was full of disorder, storms, physical suffering, and poetry. At last, he said farewell forever to this "laid Paris neuf," in which, as he complained in one of his latest poems, he felt like a stranger.

On January 9, 1896, Verlaine died, after a short illness. He died not in the hospital with which he was so familiar, but in a modest, clean

house, full of flowers belonging to his friend and admirer, "Pauvre Lélian," as he calls himself in "Les poetes maudites." He died with the calmness of a philosopher, repeating, "La mort ne surprend pas le sage."

The adventurous, disorderly, nervous life of Verlaine is full of legends, throwing a shadow upon the good name of the poet. Let us look at this life and at the poetical productions of the deceased.

Verlaine was born in 1844 at Metz: his father was a well-to-do captain in the army. At nine years of age, he was sent to the Condorcet College in Paris. His youth was spent quietly; and at seventeen he received the diploma of *bachelier ès lettres*. When his father died, he lived with his mother in Paris. They were not rich, neither were they poor; having an income of seven or eight thousand francs.

In his poetical development, Verlaine passed through all the phases common to contemporary and even to present French poets. In the beginning he was influenced by Baudelaire and "Le Parnasse," being one of the latter.

In 1865, the publisher Lemerre, so well known to-day, made his modest book-shop, situated in the Passage Choiseul, a point of gathering for young artists and poets, who originated a powerful literary movement by the publication of a new periodical, "Le Parnasse." Among these innovators were Sully Prudhomme, Coppée, Mendés, Villiers de l'Isle Adam, Dierx, Malarmé, Hérédia; the most famous being Banville and Lecomte de l'Isle. In fact, a splendid gathering of talent, some of whom—Coppée, for instance—gained great popularity; while others—Sully Prudhomme, for example—became famous in the circle of lovers of elegant poetry. Others, as Villiers de l'Isle Adam, Malarmé, and, finally, Verlaine, having left the ranks of the *Parnassiens*, became the heralds of a new tendency in poetry, among a new generation of artists.

The members of "Parnassus" became aroused against Romanticism, which, having already accomplished its great mission, became a commonplace mannerism, monotonous in form and essence. They turned away with contempt from the opinions and tastes of the people at large, —the *bourgeoisie*, who loved the most stupid and feeble literary productions, and did not know how to appreciate great contemporary writers. No wonder then that a contempt for the art epoch of the Philistines is a characteristic of all artists. Parnassus's aim was to obtain the most artistic form; to consider, in an artistic work, the form as inseparable

from the essence. Refinement of line was for him a necessary condition of poetry. The æsthetic views of Parnassus were concentrated in the rule, "l'art pour l'art," *i. e.*, that art has its aim in itself; and that this aim is the worship of the beautiful.

Parnassus made a great impression; and its influence reached far beyond France. However, having chiselled and sculptured the form, Parnassus, by the common and natural order of things, began to decline; the new forms and means were used up; and Parnassus, whose activity dealt principally with the form, became a dead system. A new epoch arose; new tendencies were awakened; new æsthetic aspirations were aroused; and to-day they are manifested in all fields of art throughout Europe. Individuality and idealism, personal art, breaking the narrow limits of every-day life, searching unknown horizons, using new means,—these are the passwords to-day, resounding everywhere among the new generation of artists.

In 1866, Lemerre published the first volume of Verlaine's poetry, "Poèmes Saturniens." Whence this title? The poet was born under the bad sign of Saturn; and he says in his preface:—

> "Or ceux-là, qui sent nés sous le signe SATURNE,
> Fauve planète, chère aux nécromanciens,
> Ont entre tous, d'après les grimoires anciens
> Bonne part de malheur et bonne part de bile.
> L'Imagination, inquiète et débile,
> Vient rendre nul en eux l' effort de la raison.
> Dans leurs veines, le sang, subtil comme un poison,
> Brûlant comme une lave, et râle, coule et roule
> En grésillant leur triste Idéal qui s'écoule.
> Tels les Saturniens doivent souffrir et tels
> Mourir . . ."

In fact, the poet's life flowed like a dark and tempestuous river, while his changing and uneasy fancy directed the feeble boat.

In the first volume, as we have said, Verlaine is under the influence of Baudelaire and "Le Parnasse." Refined, marble-like form of line, exotic impassibility, seem, to the young poet, to be the summit of his efforts. He remains under the flag of Lecomte de l'Isle; and, heralding the rule about "marble-like" line (so-called "tranquillity" and objectiveness") he exclaims, "Est-elle en marbre ou non, la Venus de Milo?"

"Poèmes Saturniens" passed without any great impression. In 1869, Lemerre published a new volume of poetry, "Fêtes Galantes,"—a book of refined, artistic verses, having the beauty of rococo figures.

Coquettish ladies chat lightly and wittily with noble cavaliers: the people of Watteau's pictures are resuscitated:—

"Les donneurs de sérénades
Et les belles écouteuses
Échangent des propos fades
Sous les ramures chanteuses.

C' est Tircis et c'est Aminte,
Et c'est l'éternel Clitandre,
Et c'est Damis qui pour mainte
Cruelle fait maint vers tendre." [1]

Verlaine obtained an inferior position in the municipal government of Paris, and married Mathilde Mottet for love, just when big clouds began to gather over France,—before the Franco-Prussian War. He was in Paris during the siege; and while serving in the Guards, he contracted a bad cold, which was the cause of the illness that tormented him all his life. He did not give up his position, even during the Commune.

The years of his youth and the beginning of his married life, Verlaine describes with a naïve sincerity in his "Confessions,"—published a few years ago.

The sentiment of love towards his fiancée inspired him with the third volume of his poetry, "La bonne Chanson," published in 1870. But the clashing of arms suppressed entirely the sounds of the lyre of love.

The life with his wife was not at all a happy one. He knew neither contentment nor peace; he was capricious, nervous, changeful; "inquiet, malade et subtil, tendre et changeant comme une femme." These words, with which Bourget, in one of his verses, characterizes himself, paint Verlaine also. The poet had to deal with a common, obstinate woman. They soon began to quarrel; their quarrels oftentimes ending in a fight—a description of which one can find in "Confessions." Finally, the misunderstanding went so far, that Verlaine was obliged to separate from his wife, notwithstanding that they had a son. But she did not cease to torment him with her hatred; so that in his imagination, she became almost a nightmare. He complains about this in his letters.

Then he began to fall into the clutches of an enchantress with greenish eyes, a poison with fire-like bosom—absinthe. The poet's nerves gave way under the continual excitement.

[1] "Fêtes Galantes"—"Mandoline."

In 1872, after separating from his wife, he went to Belgium in company with the poet, Arthur Rimbaud, whose fantastic and unusual talent made a profound impression on the soft nature of Verlaine.

Later there occurred an accident which furnished material for various legends. It is true that Verlaine spent two years in a Belgian prison; but it is not true that he was sentenced for deeds against morality. The criminal court of Brabant put him in prison for the "crime of an attempt at murder." The fact is, that the "affair" happened during a quarrel while Verlaine was drunk, in the company of Arthur Rimbaud. Verlaine's friend, the well-known littérateur, Lepelletier, thus describes the incident:—

"Rimbaud, who dug deeply into Verlaine's pocket-book, once asked for some money for a trip to Charleville. Verlaine refused. Rimbaud insisted, shouted, swore. This scene took place in the presence of Mme. Verlaine, who tried to calm the strife between the two friends, excited by an unlimited number of drinks. Rimbaud announced that he would go at any rate; he opened the door; Verlaine rushed after him, and, pulling a revolver,—which in those times, he always carried with him,—threatened Rimbaud with it. The latter tried to seize his arm. While they were struggling, the revolver exploded, slightly wounding Rimbaud's hand. Rimbaud ran to the stairs, calling 'Help me!' Like a madman, Verlaine pursued him and, without any conscience, fired a second time, fortunately without any damage. Policemen arrested and disarmed him; and he was brought to court. A Belgian citizen would have been put in prison for two weeks for the unlawful carrying of firearms and unwarranted use of them. The accused, however, was a Frenchman; and police records pointed at him as being a member of the Commune. Complaints of his father-in-law and the hatred of his wife were aggravating circumstances. He was given the severest punishment and sentenced to two years' imprisonment. The fact that Verlaine was a poet also influenced the Brabant judges."

With unusual resignation, Verlaine accepted this severe punishment. He armed himself with patience, worked, and counted the days separating him from liberty. At first he was imprisoned in Brussels, afterwards in Mons (Hainaut).

The following letter, written from the prison, throws some light upon the poet's character. The letter is addressed to Lepelletier:—

"BRUSSELS, Sunday, September 28, 1873.

"My dear friend:

When this reaches your hands, be so kind as to answer it by return mail. You can easily understand how much I care for it. For three weeks I have not had any visitors, because my mother is gone away; and since her departure I have received only one letter from her. I wrote to her last Sunday, and am still waiting for an answer. In her present state of sorrow and depression, being absolutely alone, as you know, and having such a restless disposition, she makes me

uneasy when she ceases to write to me. A thousand bad thoughts swarm around me, making my dreadful situation even worse. From time to time, I receive a letter; but this must not prevent you from acceding to my request. A letter is such a pleasure to an unhappy prisoner. Write, then, at length and as distinctly as you can; not for me, because I am accustomed to your scribbling, but on account of the Director of the Prison, in order to avoid any delay. Tell me about Paris, about my friends, and whether you have any news from Rue Nicolet [a street in Montmartre quarter, where Verlaine's wife lived with her parents]. Have the Parisian newspapers written anything about this unfortunate affair? Is Victor Hugo in Paris? Give me his address. [The great poet tried to obtain pardon for Verlaine, but without success.]

I suppose mother has spoken to you about the great importance I see in the publication of my small book, 'Romances sans paroles.' I shall correct and print it myself.

I have numberless literary projects; above all, theatrical ones, because, as soon as I am out of prison, I contemplate working very hard in order to make a living by my pen. I will write to you fully later on about it.

I do not know when they will put me in another prison. It may happen any moment; therefore, write to me soon.

I beg of Laure [Lepelletier's sister] to visit my mother as often as possible; and I thank her for the solicitude she has shown for me and for my mother.

I am longing, especially during the last two weeks, and my health is not the best. Sometimes I have dreadful headaches; and I am more enervated than ever. Do not say anything about it to my mother; and if you see her before she receives my letter, tell her that I have written to you and that I am well.

Give my best regards to Blemont and Valade. I press your hand cordially."

This letter is a *document humain*, testifying, with eloquence, to the resignation with which the poet endured his unhappy lot, as well as to his impressionable heart, and his love for his mother. The *naïveté* of this sentiment he preserved to the end of his life: he remained a light-headed, foolish, good child.

After his release from prison, he settled with his mother on a small estate in Ardennes. He was penetrated with a profound contrition, seeking a quiet harbor and religious consolation, which was a source of joy to his impressionable soul: he even spent a few months in the quiet cell of a monastery. The fruit of this repentance was a volume of poetry, "La Sagesse" (1880).

But the Verlaines were soon obliged to sell the farm and go to Paris. Days of misery came; and, after his mother's death, the poet plunged again into the crazy whirlpool of Bohemian life. "Je ne puis plus conter les chûtes de mon cœur," he said of himself in one of his poems. He was in poor health, ill very often, and obliged to search for a shelter in some hospital. As, with a sad, ironical smile, he had written of his life in prison in "Mes prisons," so, in similar manner, in "Mes hôpitaux," he painted his wanderings in the hospitals.

"Jadis et Naguère," "Amour," and several other volumes of poetry date from this epoch, as well as "Parallèlement" (1881),—a gathering of lascivious, strange verses, written at the same time as "La Sagesse"; for the stream of wisdom flows in the poet's soul side by side with the stream of sin. Although he wrote much, he used to live from hand to mouth, having hardly enough for subsistence; for does lyric poetry that walks in unusual roads ever pay, and can it assure a living to the writer? It is said that Verlaine's literary friends helped him in the struggle for life. However, that may be, it is a fact that misery was the constant companion of the poet.

Still the light of happiness sometimes fell across his path, as is proved by the volume of poems, "Bonheur" (1885).

Up to the last moment, he did not put his pen aside; being glorified by the "young ones," admired by artists, and writing for numerous Parisian magazines. Coppée said about him: "He was a good boy, but without any control over himself, and entirely spoiled by his mother. However, his foolish deeds did not injure anybody but himself; and they admit that he fully regretted them."[1]

In fact, he suffered very much; resenting everything with his heart; being gifted in the highest degree with susceptibility and *naiveté*, which are among the characteristics of the lyric poet.

As Lemaître said about Verlaine: "Il avait la musique dans l'âme"; therefore, he was obliged to sing, and he sang under the impression of the moment.

Sometimes he touches the silvery strings of the lyre of love of a troubadour; bringing out soft, floating melodies, full of charm, sweet melancholy, misty sadness, and fainting loneliness. At other times, he seizes an enchanted violin and plays some short, crazy *pizzicati*, full of *capriccii*, sparkling with artful rhymes and measures. Then, again, from a desperate soul, rush forth ecstatic prayers, full of grief and humble worship, to the Lord in heaven. In this dark soul, there gleamed and burned a mystic faith; and as one sometimes sees in Gothic cathedrals, on the walls of lofty columns, strange sculptures, representing dreadful figures of monsters, and devilish, grimacing faces of gnomes and intoxicated monks,—true works of the devil!—so in the poet's soul was found a place for lascivious and dark desires. How can we reconcile these apparent contradictions? He had the soul of a mystic, devoured by the fire of eternal restfulness,—passing easily from one extreme to another,—the soul of a libertine from the court of

[1] "Le Temps," January 10, 1896.

Louis XV, the soul of a child full of girlish freshness of sentiments, the soul of a *fin-de-siècle* Parisian,—in a word, he was a lyric poet, deeply impressionable. The greatness of his talent rests on the perfection which he always gives to his sentiments, on the artistically beautiful form of his verse.

He feels everything from the lyric side. The charm of religion attracts him and stimulates him to mystical flights. Then he soars to the Middle Ages, full of enthusiasm, secrets, and dread.

> "C'est vers le Moyen-Âge, énorme et délicat,
> Qu'il faudrait que mon cœur en panne naviguât,
> Loin de nos jours d'esprit charnel et de chair triste.
>
> . . . . . .
>
> Guidé par la folie unique de la Croix
> Sur tes ailes de pierre, ô folle Cathédrale!"[1]

Tired by adversities, with a heart full of repentance and contrition, and burning with God's love, the poet breaks forth in "La Sagesse" in hymns; recalling the profound and flamelike church-poets of the Middle Ages.

He has a soul as naïve as a child's,—telling about his offences and sins, and shedding bitter tears on account of them,—which manifests itself in these poems as though they had been written a long time ago, in a past epoch, in the Middle Ages, by some devout anchoret or simple theologian.

Suffering and love made the poet sing melodies with incomparable charm and simplicity. One of the most charming songs is the one beginning,

> "La lune blanche
> Luit dans le bois."[2]

With similar delicacy, simplicity, and art are marked the poems in which the poet expresses his sufferings and griefs. Enjoying the tranquillity of an evening outside the city, the whispering of the trees surrounding a quiet house, he exclaims, "Lord, Lord, how peaceful is the life here!" And from the soul wandering on the dark roads of reminiscences, rushes out, amidst sobbing, the question: "Tell me, what have you done with your youth?"[3]

Long sobbings of autumn wind are blended with the exclamation of a suffering heart in one melody of sad song. In these fantastic and

[1] "La Sagesse," iv. [2] "La bonne Chanson," iii. [3] "La Sagesse."

strangely suggestive words, in the "Chanson d'Automne,"—one of the "Poèmes Saturniens,"—

"Les sanglots longs
Des violons
De l'automne"

does one not actually hear the whistling of the wind, the falling of the yellow leaves from the trees?

Verlaine lived a long life, famous in the circle of "young ones," appreciated by the connoisseurs, a stranger to the people at large.

In the meantime, new cliques appeared in the field of literature and art; and they had such a strong influence in all directions, that even the people at large and the newspapers began to pay close attention to them. They gave up the sarcasm with which, for several years, they had greeted new tendencies of artists: they began to comment upon them, to study them. Only then did the public begin to pay attention to Verlaine's personality: it crept into the columns of the newspapers; and the fantastic life of the Bohemian poet proved to be a good theme for the reporters of the boulevards.

They baptized the new cliques "Decadents," "Symbolists," and several other names. They proclaimed Verlaine at once a *Décadent*, a *Symboliste;* but such names at best have no signification, and by no means can they be applied to Verlaine. Being a pure lyric poet, he did not care about pure theories, he did not bother himself with formulas, nor did he pay any attention to the "schools": in schools imitators are gathered. When he was asked what he thought about symbolists, he answered, with this sarcastic but good-natured *blague*, which was characteristic of him:— "Cymbalistes? Je ne comprends pas. Ça doit être un mot Allemand."[1]

However, Verlaine stood in the front rank of political reformers; and he enjoyed the love of the whole new generation of poets and lovers of the new poetry. They appreciated and loved him as the poet of God's favor. Besides, they felt as though related to him by their similar views on art, their artistic tendencies, and in general by the whole character of his poetry.

It would take too much space to give an exact picture of the influences dominating the younger generation of poets, and to penetrate into their psychological reasons. These influences, apparently very contradictory and entangled, dark and strange, are, in the opinion of some, indicative of an epoch "of decadence"; according to others,

[1] HURET, "Enquête sur l'évolution littéraire."

of a transitory period, full of movement and life, of dreams about a glorious future, unknown presentiments, and loneliness. But, in order to bring out Verlaine's position and importance in contemporary Parnassus, I must point out, at least, the principal characteristics and views of the younger generation of poets.

It is impossible to treat the new artists as one body; for they have only one point in common—individuality in life and art, the worship of the beautiful in any form. They understand and appreciate all tendencies, in so far as these are real, sincere expressions of the creator's conviction. The majority of them however, turn away from naturalism, because they consider its methods and philosophy too old. Naturalism,—the observation of details of life—has, say they, accomplished its mission.

Huysmanns, a former pupil of Zola, on the first page of "Là bas," accuses naturalism of flatness, of commonplace and Philistine brutality, —"l'immondice des mots et des idées."

This weariness is a very natural manifestation. We live in a transitory epoch, at the dawn of a new era. Such an epoch always awakens many desires; and as no one is able to foresee the future, or indicate the right direction with certainty, it is no wonder that many are seized with sadness and discouragement.

"Melancholy, loneliness, sadness, discouragement, are the essence of my soul," says one.

In the quiet motive of weariness, and in the fondness for pale colors, the whole of Verlaine's tendency was in harmony with the tendency of the majority of contemporary poets. The poet was evidently conscious of the quality of his poetry. The following characteristic fragment throws more light than any other upon the delicate soul of the poet. It is taken from Verlaine's "Memoires d'un veuf"; and the title of it is "Malaria."

"Are you like myself? I hate people full of blood. I despise the whole rank of famous painters and sculptors, notwithstanding my admiration for their works. Noisy voices, rude laughter, shock me beyond expression,—in a word, I dislike health. By health, I do not mean that marvellous harmony of soul and body which the heroes of Sophocles possessed, and the antique statues of pagan philosophers, but this dreadful, red face, noisy joy, burned, perspiring skin, plump hands, thick feet,—the whole mass of body and colors, a superabundance of which our epoch seems to enjoy.

From the same motives, I hate the so-called healthy poetry. Imagine only this: Beautiful girls, beautiful boys, beautiful souls,—"mens sana," etc.,—everything beautiful beyond words. As for the background: Green woods, green fields, blue of the sky, golden sun, weaving white,—I turn away in disgust.

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Are you like myself? If not, leave me alone. But, if so, stay and tell me about a September afternoon, about a burning, sad afternoon, when the golden ray of melancholy falls upon the dying and over-ripe landscape. In such a frame, show me a quiet, queenlike figure of a woman, weary of suffering, whose youth is past but a few years. Her strength is not great; still, she can walk in the park. Clad in a white dress, she has large, gray eyes, like the sky, unchanging like the horizon. Truth is written in those eyes: a profound, warm passion is hidden in them.

My heart and my thoughts accompany this pale enchantress, while, in her flowing dress, she walks over the faded flowers, among the over-ripe fruits, surrounded by the scent of autumn."

The subtleness—or, if some prefer, sickness—of this poetry, required the use of artistic methods. Verlaine is the master of lyric expression; using every delicate means, in order to express every shadow of his sentiment, and to excite, by harmonious sounds, the nervous strings of the modern, impressionable listener. That is why the "young ones" considered him their leader and why he was called the first Symbolist. The melodious, suggestive words, the strange, symbolic pictures arouse in the soul of the reader, the impression which the poet wishes to give him. "Il pleure dans mon cœur, comme il pleut sur la ville," says the poet; and the use of assonance and alliteration ("pleure," "pleut") gives to the lines a pleasing harmony, and to the picture charm and color. To move the sensitive soul of the listener by the music of the rhyme,—such is Verlaine's aim.

When Lecomte de l'Isle died, one of the Parisian reviews asked the literati and artists, who, after the author of "Poèmes Barbares," was worthy to take up the national lyre. The votes were all for Verlaine. The public of the boulevards was astonished at such an artistic *plebiscitum*. The new poet laureate was so little known! Nevertheless, many lovers of poetry loved and admired him,—but how many lovers of poetry are there?

Paul Verlaine died January 9, 1896, and was buried two days later in Clichy Cemetery. All the artistic and literary youth of Paris followed his coffin; several eminent literati spoke at his grave.

Verlaine never soiled himself with a falsehood; nor did he humiliate himself by seeking the applause of the multitude. His lyre was not for sale. He was a poet always, sincere and proud. He walked alone, sad; and he suffered.

S. C. DE SOISSONS.